SOUTHERN
TEXTILE BULLETIN

VOL. II CHARLOTTE, N. C., JANUARY 18, 1912 NUMBER 20

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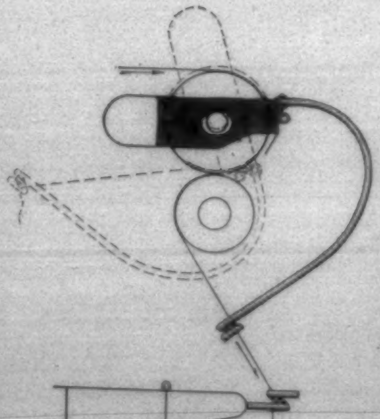

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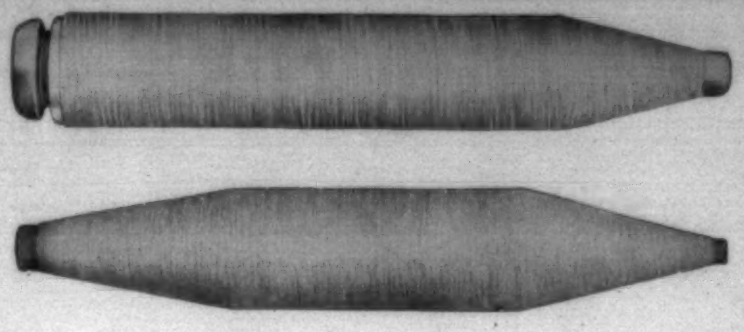

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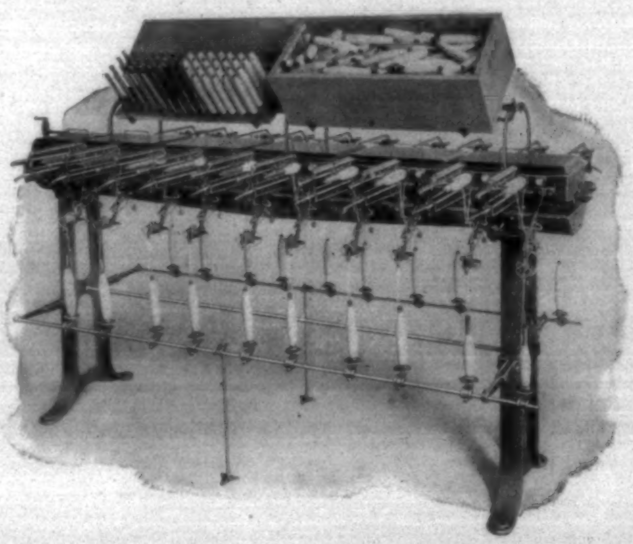

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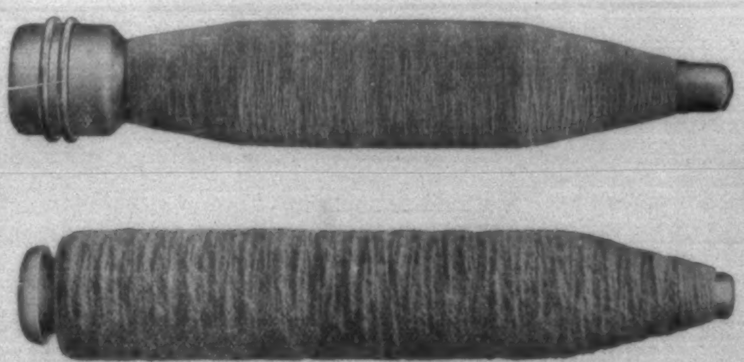

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SOUTHERN AGENT, O. A. ROBBINS, - - CHARLOTTE, N. C.

SOUTHERN
TEXTILE BULLETIN

VOL. 2 CHARLOTTE, N. C., January 18, 1911 NUMBER 20

Cotton Manufacturing in Spain

Report of Commercial Agent R. M. Odell

(Continued from last week)

The system of numbering yarns in Spain differs slightly from the English method. In the latter, one skein or hank, of 840 yards of No. 1 yarn weighs 453 grams, whereas in the Spanish system 850.28 yards (777.5 meters) of No. 1 yarn weighs 550 grams. To reduce the Spanish number to the corresponding English number the formula $E=0.96154 \times S$ may be used; E being the English number and S the Spanish number.

For the purchase and sale of yarn there is organized in the Fomento del Trabajo Nacional a cotton-yarn exchange, which controls the form and execution of contracts and arbitrates disputes. Most of the spinners and weavers in Catalonia are members of this association.

Quotation on yarns are made in reals (4.48 cents) per 4.4 kilos (9.7 pounds), discount of 2 per cent for cash. For example, No. 14-1 warp yarn is quoted at 50 reals ($2.24) per 4.4 kilos. Yarns made from American cotton are quoted higher than in the United States, but those made of Egyptian yarns are considerably lower. Yarn is sold at four months net, in addition to the month during which delivery is made, or 2 per cent. discount if settlement is made in 30 days. Raw cotton is sold at 60 days net. If payment is made before, discount is at the rate of 5 per cent. annually; if paid after 60 days, interest is charged at the same rate. Cloth is sold on four months' time or 2 per cent. in 30 days.

Kinds and Cost of Power.

Spain contains a large number of waterfalls supplying comparatively cheap power. It has been estimated that over 5,000,000 horsepower can be developed from the rivers of the country, of which only 80,000 is now utilized. Of the 1,800,000 spindles in Spain, more than 1,200,000 are in mills situated on or near rivers. About three-fourths of the spindles use water as a motive power, with steam or electric auxiliary installations for use when the rivers are low.

The system under which power is purchased is unique. The owner of the water power usually owns the mill building, and for the rent of the building and the use of the power day and night an annual charge of 100 pesetas (17.92) per horsepower is made. The contract is usually made for 10 years, with the privilege of renewal. The use of water to develop electric power is not extensive, owing to the lack of large enterprises and the difficulty of securing capital with which to prosecute big undertakings. Attention has lately been drawn to the possiblities along this line and the indications are that considerable progress will be made in the near future.

Steam power, which is used altogether in the city of Barcelona, costs 125 pesetas (22.40) per horsepower, while the cost of electric power developed by steam is 250 pesetas (44.80) for day and night run. These figures were furnished by the president of the Spanish Cotton Manufacturers' Association, and are interesting because they reveal the fact that the cost of power is much lower in Spain than in the United States. Most of the coal used by the cotton mills is from Asturias, in Spain, and is sold at 31 pesetas ($5.55) per ton. It possesses 7,000 calories. The price of imported coal is higher, being $7.20 per ton for the Cardiff and $5.76 for Newcastle, on carts at quay in Barcelona.

Type of Mill Construction.

The current type of construction consists of a ground and a first floor built of stone or concrete, but some factories, particularly in the large towns where building sites are more expensive, have three or four stories. In the modern mills ventilation and light are good, but the contrary is true of many of the older ones. Humidifying systems are not generally used, but in most of the factories visited the work seemed to be running well, although as in most European countries, more operatives are required per machine than in the United States.

There are no automatic sprinklers in the mills, although patent fire extinguishers are very generally used. The reasons for this lack of fire protection, I was told, are the infrequency of fires and the greater facility in combating them, owing to the fact that many factories work day and night, and that there are generally fewer floors in one building than in other countries. Another and very important reason for the failure to install sprinklers is the low insurance rate now in force, which varies between 2 and 5 pesetas on the thousand, and the insurance companies offer a reduction of only 25 per cent in the case of mills with sprinklers. As the estimated cost of the installation is 1.50 pesetas (0.2688) per spindle, the manufacturers are not inclined to favor the proposition. In the last few years there have been 251 fires in the cotton mills, and the aggregate loss amounted to 860,000 pestetas ($54,110). The total annual premiums paid by the mills is given as 594,000 pesetas ($106,445).

Machinery.

More than 80 per cent. of the cotton mill machinery in use is of English make, Platt Bros., Brooks & Doxey, Heatherington, and Dobson & Barlow being the chief firms represented.

It should be stated that practically all of the plain looms are now made in Spain, the imports of this class of machinery being small. The duty on all machinery is levied by weight, and the proportionate cost is very high in the case of a plain loom. Dobby and Jacquards although heavier than the plain looms, are much more valuable, so that the customs duty is small as compared with the cost of the loom, hence they are usually bought abroad, although a few are now made in the country. The looms made in Spain are modeled after the English type, in many cases being almost identically the same. Attempts have been made to manufacture other kinds of cotton mill machinery, particularly spinning frames, but without apparent success.

Automatic Looms.

The use of automatic looms is not large, about 700 of the Northrop pattern being operated in the entire country. There are several reasons for this. In the first place, the mills in Spain do not specialize, many classes of cloths being made in each factory, and the Northrop pattern is not adapted to the weaving of many varieties. Again, one of the chief claims made for the Northrop loom is the great saving in labor, but owing to the cheapness of labor in Spain this argument does not appeal to the cotton manufacturer sufficiently to induce them to pay the higher price charged for the loom—1,400 pesets ($251) in Barcelona. Finally, the dull times through which the industry has been passing have retarded the expenditure of money on improved machinery.

Recently a new type of automatic loom has been introduced in Spain, and about 200 of them are now in operation. This loom is of Alsatian manufacture, and like the Northrop pattern it is a bobbin-changing loom. The principal point in which it differs from the latter is that the bobbins of yarn are placed in a long bar or cartridge, which extends over the loob, rather than in a round cylindrical battery. There are three of these, one in action and two in reserve, and it is claimed that they hold sufficient weft to run the loom one day of 10 hours, thus eliminating the necessity of continually recharging the battery. This loom is run at a higher speed than the Northrop and the cloth woven on the one I saw in operation was of excellent quality and lacking in defects, such as unevenness, mispicks, and thin places. The price of the loom at the works in Alsace is 970 francs ($187.20) and the price in Barcelona is $221.55. Of Jacquard looms there are about 4,000 in Spain.

As already stated, the mill buildings in Spain are generally rented. The cost of spinning machinery with all the preparatory machines (lappers, cards, drawing and roving) is approximately 40 pesetas ($7.17) per spindle, and weaving complete (20s to 30s yarn, plain white goods) 60 pesetas ($10.75) per spindle. These figures, however, do not include the power plant.

There are three characteristics of the cotton industry that impress the American upon entering a Spanish cotton mill: First, the large number of operatives required; second, the predominance of female employees (only about 15 per cent. males); third, the wide range of fabrics produced in each factory. There are a number of mills, for instance, making plain sheetings, colored goods, oxfords, prints, colored drillings, and, in the same es-

(Continued on page 18)

Fire Protection

THAT the losses by fire in the textile mills of the country are not more than they are is due to the remarkably original and thorough manner in which a few men interested in the ecomoic side of textile manufacturing worked out, many years ago, plans for reducing the liability of serious fires, and provided apparatus and appliances for extinguishing them. These men were the organizers of the first so-called mutual fire insurance companies, and employed the best experts in their line, both in the proper construction of buildings, which not only diminished the liabilities of fires starting, but also afforded better opportunities for successfully coping with a fire if once under way, and in the arrangement and nature of the fire protection equipment. All this led up to the organization of what is known as the "Factory Insurance Asociation," and while this body does not by any means carry all the insurance in the manufacturing trades, the rules and requirements adopted by them are a recognized standard, not only for buildings devoted to manufacturing, but to all classes of business edifices, and it is very doubtful if any textile mill is now in existence which, if not insured by them, is not equipped according to their general practice. And, therefore, as the care and operation of the equipment usually comes under the mechanical department of a mill, it is one of the important and interesting things which a mill mechanic should know about.

Equipment.

The usual equipment for fire protection in a textile mill consists of fire pumps, yard hydrant, cisterns, automatic sprinklers inside all buildings connected to pressure lines, fire hose and reels, hand extinguishers and small tools.

Mills with both water and steam power generally have one or more steam pumps, and in addition rotary or power driven units, which can be operated directly from the water wheel shafts or from the main shafting lines.

The steam fire pumps now in use are nearly all built according to a standard formulated by the fire insurance companies, and are, regardless of the make, almost exactly alike, and are preferably of the double duplex type, to insure certainty of operation, and do not differ materially from the ordinary steam pump designed for 100 pounds pressure or upwards. The pump should be locted as near the boilers as possible, and connected to them by a separate connection, and all other outlets from the boilers should be provided with valves in the boiler house, and easily accessible; so that all avenues for steam can be closed at any time.

An Important Provision.

This provision for an independent steam supply is considered very important by the insurance people. The water supply for the pump should be ample, and if a connection with a stream or pond is possible, it is much better than from a public main. In most cases pumps are better when situated so that the water has to be lifted a moderate distance; although they work very well when under a light head.

If the mill is provided with water under pressure from some general gravity or public system, it is usually the practice to pipe the discharge of the pump directly into this general system with check valves placed on the gravity lines at the points of their entrance to the plant, to prevent the pump from acting upon the lines outside. This arrangement enables the mill to avail itself of the water from two sources, with one system of pipes; so that if one supply is inadequate, the other can be brought into use without delay.

The hydrants in universal use at the present time are all what is known as "frost proof." That is, the shtu-off valves are so low that no water is above the frost line when the hydrant is not in use. There are many different styles of hydrants sold which comply with the underwriters' requirements and which are alike in all their principal features; the valve arrangement being about the only thing where a variance is noticeable. For water pressures, at or below 75 pounds, the valve with soft rubber seal is suitable; but for anything exceeding that, nothing but hard rubber, composition or bronze seats should be allowed. To provide for drawing out the body of a frost proof hydrant, after it has been used, a small outlet is placed directly at the bottom, which is opened and closed by a small plug or spigot, actuated by the stem of the main valve; so that when the valve is shut the spigot or drain valve is open. This contriance is a very important adjunct to a hydrant, and in setting new work care should always be exercised in placing the opening away from obstructions.

The Sprinkler System.

Inside the mill building, first and most important is the sprinkler system. The automatic sprinkler, which at one time was merely an experiment, is now a standard article, and, as every one knows, consists of a fitting in which a plug is held by the force of some link or connection made of a composition made to fuse or melt at a certain temperature, the standard limit being 155 Fahr., while for locations where more heat is present, those composed to melt at 200 or even 300 degrees are used. These heads are placed on the ceiling of all rooms at frequent intercals and connected to pressure mains from the yard system. The action of the heads when exposed to a heat at which they are designed to melt, by opening and permitting a one-half inch jet of water to escape on to everything in range, affords one of the most efficient fire extinguishers known, and no instance is on record where a fire has extended beyond a limited space in a building equipped with automatic sprinklers in good working condition. Without going into the details of automatic sprinkler layouts, for which the underwriters usually furnish complete plans, it might be proper to mention some of their recommendations and requirements in regard to such as it might be of value in planning small additions or changing existing systems.

Each sprinkler head is supposed to take the capacity of a one-half inch pipe; consequently there is a maximum number of heads allowable for each size pipe, which are as follows:

3-4-in. pipe........	1 sprinkler
1-in. pipe	2 sprinklers
1 1-4-in. pipe......	3 sprinklers
1 1-2-in. pipe......	5 sprinklers
2-in. pipe..........	10 sprinklers
2 1-2-in. pipe......	20 sprinklers
3-in. pipe..........	36 sprinklers
3 1-2-in pipe......	55 sprinklers
4-in. pipe..........	80 sprinklers
4 1-2-in. pipe.....	110 sprinklers
5-in pipe..........	140 sprinklers
6-in pipe..........	200 sprinklers

All heads working under more than twenty pounds per square inch pressure should be spaced the following distances apart:

In 12 foot bays....	7 to 8 feet
In 11 foot bays......	8 to 9 feet
In 10 foot bays......	9 to 10 feet
In 9 foot bays......	10 to 11 feet
In 8 foot bays......	11 to 12 feet
In 7 foot bays......	11 to 12 feet
In 6 foot bays......	11 to 12 feet

Another feature is that the point of distribution should be central to avoid more than five or six heads on one continuous branch line.

Placing Sprinklers.

In placing sprinklers near a wall the distance from the wall should not exceed one-half the distance give above for the spacing apart. Sprinkler heads do their best work if placed upright above pipes; but it is sometimes advisable to place them pointing downward.

The above sugestions are formulated from the best experience connected with fire protection engineering, and should be as closely followed in laying out sprinkling equipment as possible.

The next thing in the equipment of importance is the fire hose, relating to which the insurance authorities have made much the same code of requirements as with the pumps and other apparatus.

There are two varieties of fire hose recommended by them, the linen or cotton unlined, and the standard rubber lined, and all the reputable manufacturers supply hose in accordance with the underwriters' specifications; in fact, it is known as "standard underwriters' hose." For ordinary purposes the 2 1-2 inch size is used exclusively, and the couplings and other fittings are standardized, so that hose and valves of all makes are generally interchangeable. For interior use around the different machines small hose is also recommended, and is usually connected to the mains of the sprinkler supply.

Choice of Hose.

For general purposes the rubber-lined hose is much the best; but when a long life is desired, and when hose is necessarily kept in warm, dry rooms, as is the case with the small hose inside the mill, the unlined is preferable and cheaper.

The play pipes or tips for the standard 2 1-3 inch hose have in all modern equipment a 1 1-8 inch opening, and it has been demonstrated that for all general purposes this size is correct, although many larger nozzles are used. It is usually recommended that the supply of hose be distributed about the plant as much as possible, and besides, several lengths on the hose carriages, that there should be some hung in the outside hydrant house and stair towers of the buildings. This should be placed in such a way that it is easily taken down, and there should be a nozzle attached to each length.—Fibre and Fabric.

"Yes, we quarreled because she wanted a $25 hat."

"But you seem to have made up with her?"

"Yes; I bought her a $50 dress."
—Exchange.

"Johnny, you must comb your hair before you come to school."

"I ain't got no comb."

"Borrow your father's."

"Pa ain't got no comb either."

"Doesn't he comb his hair?"

"He ain't got no hair."

Did His Level Best.

"Now, Thomas," said the foreman of the construction gang to a green hand who had just been put on the job, "keep your eyes open. When you see a train coming thrown down your tools and jump off the track. Run like blazes."

"Sure! said Thomas, and began to swing his pick. In a few moments the Empire State Express came whirling along. Thomas threw down his pick and started up the track ahead of the train as fast as he could. The train overtook him and tossed him into a ditch. Badly shaken up he was taken to the hospital where the foreman visited him.

"You blithering idiot," said the foreman, "didn't I tell you to get out of the road? Didn't I tell you to take care and get out of the way? Why didn't you run up the side of the hill?"

"Up the soid of the hill, is it, sor?" Thomas through the bandages on his face. "Up the soid of the hill? Be the powers, I couldn't bate it on the level, let alone running up hill!"—Ex.

Tariff Board Cotton Glossary

(Continued from last week.)

Besides fabrics ordinarily known as the product of the knitting machine, such as hosiery, gloves, and underwear, the knitting machine can be used for making other goods, such as plush goods, imitation furs, astrakhan and boucle cloth, crochet work, imitations of lace, etc., and in some cases, owing to the higher speed of production of knitting as compared with weaving the knitted goods, can be made cheaper.

Philadelphia is the headquarters for the knitting industry in the United States, as is Nottingham in England and Troyes in France. Chemnitz is not only the leading knit-goods center of Germany, but is the largest exporter of knit goods in the world.

Narrow Fabrics and Cotton Belting.

Cotton belting for machinery driving, whether made wholly of cotton or of cotton and rubber, is usually woven wide on an ordinary but specially heavy loom and is therefore not ejusdem generis with the other articles provided for in this paragraph which fall under the heading of narrow fabrics.

Narrow fabrics are manufactured in two ways, either (1) on a ribbon loom, or (2) on a braiding machine.

(1) In the plain loom the shuttle is thrown the full width of the lay. In the ribbon loom the warp is divided into a number of separate groups and a series of small shuttles used to weave a number of narrow ribbons or tapes at the same time, each shuttle only occupying the width on the lay sufficient for passing the filling through its particular group of warp threads. These ribbon looms are made in various widths and divisions, and either with or without attachments such as leno and Jacquard apparatus, etc. The materials employed are of all kinds, cotton, wool, silk, linen, jute, rubber, gold and silver threads, etc., and the products include everything that can be woven in narrow widths such as plain ribbons or tapes in plain, twill, satin, or rep weaves; name bands, laundry ribbons, velvet edgings, elastic webbing, hollow bands and neckties, venetian-blind bands, ribbon-loom lace, handle and other stiff bands, corset and apron trimmings, fancy bands with either warp or filling figuring etc. There are two main types of ribbon looms, thos having banks or chests of shuttles that move in a straight line to the right or left like the shuttle of an ordinary loom but with shorter travel, while the second type has shuttles that move in semicircles, the tracks of which cross each other. In either case the movement of the small shuttles is controlled by a long rack which gears with teeth cut in the shuttle. The curved shuttle looms are mainly used for plain work, as for making plain tape, cigar bundle bands, etc. The shuttles on a straight shuttle loom are arranged in banks of shuttles one above the other in numbers of two to eight shuttles to the bank. Some six shuttle-bank looms make two ribbons, one above the other, each using three of the shuttles in each division of the loom. The ordinary ribbon loom as used in Germany is 4 meters (4.37 yards) wide, makes 20 ribbons at a time, in three colors, and is fitted with Jacquard attachment.

The ribbon-loom industry in the United States is scattered, but Philadelphia is one of the main centers. Abroad the noted centers are Barmen in Germany, Basle in Switzerland, and St. Etienne in France.

(2) Braided work on the Continent centers at Barmen in Germany, and in the United States at Philadelphia. In ordinary weaving there is used two sets of threads, one the warp and the other the filling. In braiding there is used only one set of threads, and these are plaited together to form the design desired. In the making of braid these are plaited or braided together in various ways, so that (a) each thread plaits with every other thread to make "round" braid or cord; (b) groups of threads combine with each other to make "flat" braid; (c) braids join with other braids to form "stripe" braid; (d) or parts of braids plait with parts of other braids to form "Barmen lace" braids. Three threads are the least that can be used for braiding, as two can not be plaited but only twisted around each other. In braiding machines the bobbins are of thread mounted on bobbin carriers which are guided in serpentine courses by grooves cut in a circular steel plate. The threads are all brought up from the bobbins to a common center called the braid former and the finished braid is drawn off by take-up rollers clear of the machine and falls into a can placed alongside. The largest braiding machines are equipped to make Barmen lace braids up to 10 inches wide, using up to 120 threads braided together.

Boot, shoe and corset lacings are usually made on the braiding machine, either as plain or tubular fabrics, but some are woven on ribbon looms.

Lamp, stove and candle wicking are usually made of low-grade yarns and in sizes from a small fraction of an inch in the flat type to several inches in width in the flat and round types for large oil stoves and lamps. Wicking is woven both on the narrow ware cam out a loop and twists it and then twists the two sections together, or are braided on a simple braiding machine made for the purpose.

Elastic webbing is made on a ribbon loom, and rubber threads used with those of the regular type to form the warp. They include tubular elastics, bandages and truss webs for surgical purposes, etc., but their principal use is for suspenders and garters. These two webs, in order that they may meet the requirements of the manufacturer, are usually required to have loom and on the braiding machine, in the latter case there being frequently used a core of very soft, coarse roving braided around with finer yarn of a good strength and quality.

Labels for garments or other articles are made on the ribbon loom with jacquard attachment.

Spindle banding is twisted or braided strands of roving or yarn used to drive spindles by transmitting the power from the tin driving cylinder to the whirl of the spindle. They are twisted on a special machine which automatically draws a standard stretch the suspender webbing must be capable of stretching from 12 out to 16 inches and the garter webbing from 12 out to 18 or 20 inches. Suspender webs are made in various widths, from three-fourths of an inch for youths' wear up to 2 inches for "farmers" suspenders. The usual widths for mens' suspenders are 1 1-8 and 1 3-8 inches. Double cloth weaves are generally used in the construction of suspender webs, the back and face being stitched together with binder warp threads, these latter threads also serving to divide or separate the strands of rubber. There may be anywhere from 10 to 40 strands of rubber in a piece of 1 1-8 inch web, depending upon the required texture. The size of rubber may vary from a 44 (about twenty-three one-thousandths of an inch square) up to a 24, which measures 41 one thousandths of an inch square. The coarser the rubber the more expensive but the greater the stretch and lasting qualities. The "number" of rubber yarns means the number that will lie side by side in an inch. Suspenders are retailed at all prices but the popular ones sell for 25 and 50 cents, the webbing for the first costing the makers from 3 3-4 to 4 1-2 cents a yard and for the second from 5 1-2 to 7 1-2 cents a yard. Garter webs are usually manufactured in connection with suspender webs. The widths of garter webs run from one-half to 11 inches. The best selling line is black lisle webs five-eights and three-fourths inch wide, though these are made in different colors and garter webbing is made in many different grades. Looms for the manufacture of garter webs seven-eigths inch and under may contain as many as 48 shuttles, weaving 48 strips at the same time. The lisle webs are usually made on five harness, with the rubber on the first shaft divided by four cotton threads which are drawn either straight twill, two up and two down, or broken twill on the four remaining shafts.

Tire fabrics are used in the manuacture of automobile, bicycle, and other vehicle tires, forming the base or foundation for the binding up of the finished rubber or composition tires. There is used a wide range of weights and qualities, from goods weighing 3 ounces to those weighing 20 ounces per square yard, using yarns from 8s to 40s and from singles to twelve-ply. In most of these goods there is only one or two picks to the inch, this peculiarity being due to the fact that the filling is inserted merely to keep the warp yarns in position and is not needed to give strength to the cloth. It is essential that the warp yarns be very strong and the coton used for tire fabrics is all long stapled sea-island cottons rarely under 1 3-4 inches in length and from this up to the longest grown, 2 1-4 inches. The yarns are always combed, and the fact that in order to get the required strength the comparatively coarse numbers of yarns used have to be made of the longest stapled cotton and combing makes the cost of the yarn very high as compared with the same counts of ordinary yarns, and spite of the fast production on the loom due to the few picks to the inch the finished fabric is much more costly than fabrics like duck which are made of ordinary yarn.

Damask is a textile fabric woven in elaborate patterns of various designs, such as flowers, leaves, scrolls, etc. It is always made on a Jacquard loom, usually of cotton, but some of the better grades of linen. The name is derived from the city of Damascus, which was famous in older times for rich and elaborately woven patterns. Damask may be divided into curtain damask, sometimes called tapestry, which is made in large vari-colored patterns, and table damask, this last being usually finished white.

The term table damask is used to include, besides table cloths, table napkins, tray napkins, damask slips, damask doilies, tea cloths, thumb napkins, etc. The weaves usually employed are satin twills (mostly 5 and 8 harness) and the figures in the fabrics are made by alternately exchanging warp for filling surface and vice versa. In satin weaving each warp thread passes under one and over four or more picks, under one and over four, etc., and the points of change from one side to the other are scattered as much as possible, thus producing an even, close, and smooth surface, which is capable of reflecting the rays of light very entire, the methods of weaving thus producing a smoth and lustrous effect. Where the fabric is made all of the same color, as is usual with white table covers, the different reflections of the light as it falls on the warp-faced satin and the filling-faced satin woven portions of the fabrics brings out the pattern in bold relief and makes it easily visible. In some cases a straight twill is combined with the satin twill to give a shaded effect or other combinations of weaves made as desired, but the method of shading generally employed is to gradually change from the warp-up to filling-up, and vice versa. Table damasks are usually finished by bleaching, starching, and pressing.

(To be Continued).

Loom Gauge

By Hermann W. Wilke, of Stirling, N. J.

THIS invention by Hermann W. Wilke, of Stirling, New Jersey, relates to improvements in loom gages such as are used to record the amount of material that passes through a loom or similar machine. It is customary to place such gage between the reed and first roller of a loom, the instrument being fastened to some convenient support, and the knurled heads engaging the edge of the work. The material passing between the knurled heads causes them to rotate and consequently operate the instrument. In the is provided on which revolves a common type of gage a single dial pointer directly connected through suitable gearing to one of the knurled heads, thus enabling the operator by observation or use of a watch to determine the rate the machine operates at.

The object of the invention is to improve such instruments by the addition of a device that will record or meter the quantity of work passing between the knurled heads, thus keeping accurate count of the production of each machine and enabling the operators to adjust them accordingly.

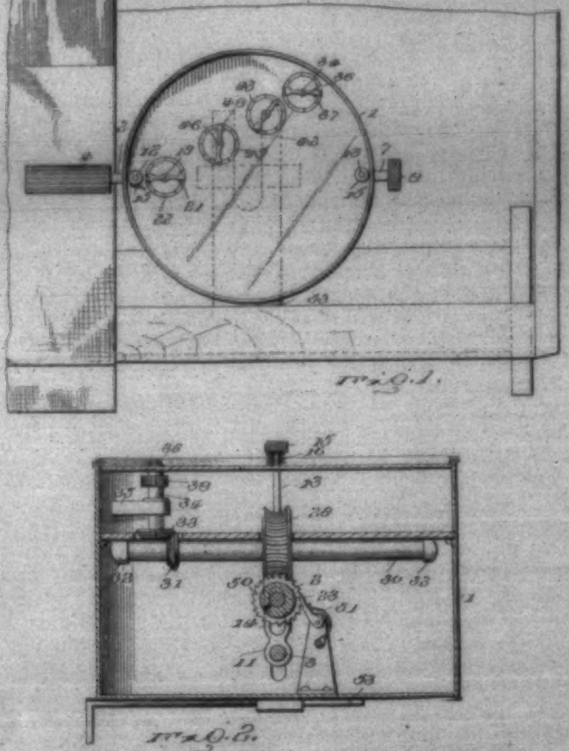
With the above and other objects in view the invention resides in the novel features of construction, formation, combination, and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which—

Figures 1 is a top elevation of the device as applied to a loom; Fig. 2 is a partial vertical section on the line 2—a of Fig 3; Fig. 3 is a side view of the device with one-half of the casing broken away, and Fig 4 is horizontal view of the device on the line 4—4 of Fig 3.

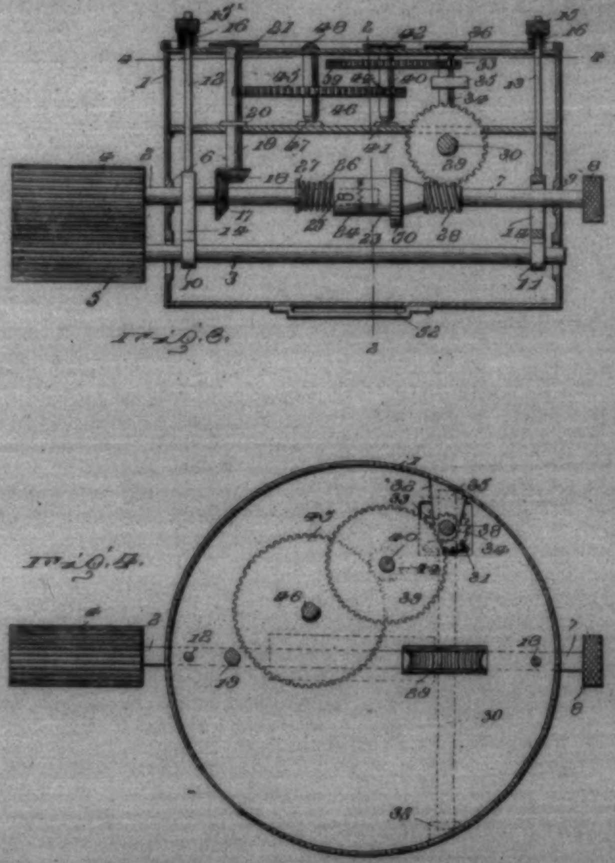
Referring to the drawings by characters of reference, numerical 1 represents a frame or suitable casing, in which is mounted the mechanism of the instrument. Extending outside the casing are two parallel shafts 2 and 3, having mounted on their ends the knurled or ribbed heads or rollers 4 and 5. The work to be measured, passes between these two heads, thereby causing them to be rotated and thus operating the indicating and registering mechanism. The shaft 2 is journaled at 6 in a suitable bearing fastened to the casing, the other or inner end of the shaft fitting loosely within a hole drilled within the enlarged end of a shaft 7, which extends on out through the opposite side of the casing, terminating in a knob or handle 8, the shaft being journaled at 9 where it passes through the casing. The lower shaft 3 passes through vertical slots in the casing and is journaled at 10 and 11 in the lower ends of the rods 12 and 13, which are provided with openings 14 to pass around the shafts 2 and 7, the upper ends passing through the top of the casing terminating in threaded ends on which are placed adjusting nuts 15, springs 16 being interposed between the casing and the nuts 15, to allow a greater flexibility in the mounting of the shaft.

It will be seen from the foregoing that the distance between the knurled heads can be varied by adjusting the nuts 15, thus allowing the use of material, the springs 16 being interposed to allow a slight flexibility in the adjustment. A bevel gear 17 is mounted on the shaft 2 and meshes with a bevel gear 18, mounted on the lower end of a vertical shaft 19, which is supported in suit-

(Continued on Page 18)



Wilke's Loom Gauge. Figures 1 and 2.



Wilke's Loom Gauge. Figures 3 and 4.

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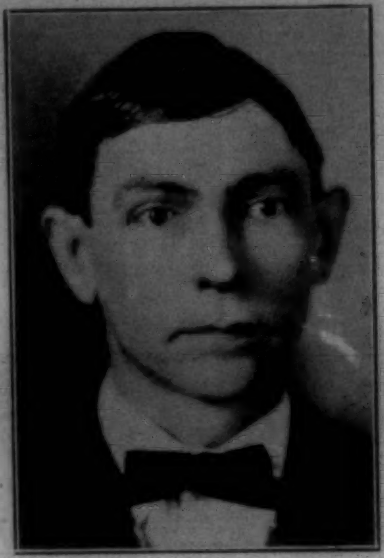

Winner of First Prize
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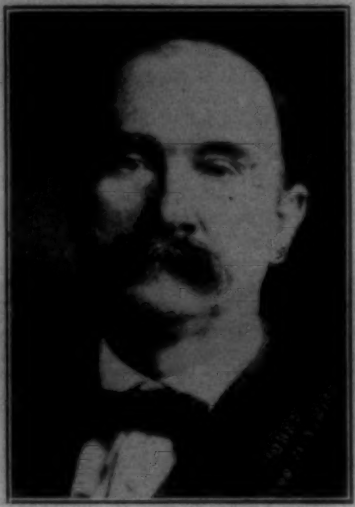

Tied for Second Prize
C. H. Goodroe,
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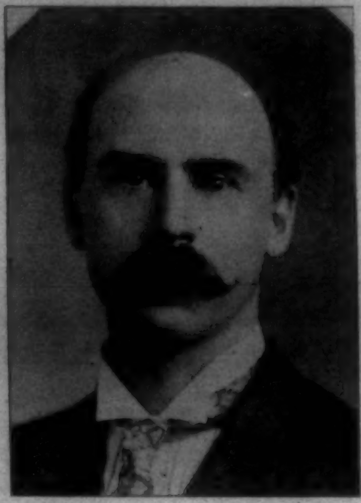

Tied for Second Prize
Chas. M. Stoy,
Anniston, Ala.

WINNERS IN CONTEST ON MANAGEMENT OF HELP.

Our Regular Discussion Page.

The discussion on "Management of Help" being fully closed and the prizes awarded we can now return to our regular discussion page which is a feature of this journal and we are publishing this week a number of questions which have been received but, for lack of space, could not be printed until the big discussion closed.

We hope that our readers will answer these questions as we want our subscribers to run this page and we always appreciate contributions for same.

Roll Setting.

Mr. Editor: I would like to ask a question through the columns of your paper.

I want some good carder to tell me the proper settings for both Front and Back Rolls, with 1-inch staple cotton, slubber roving, .62 hank, intermediates roving 1.70 hank, fine frames 5.10 hank.

If some good carder will answer this it will be appreciated.

M. H. J.

A Question.

Editor:

I have a question I would like for you to ask in your paper. I have a lot of trouble with my roving lapping around the middle steel roller and would be glad if some one would tell me what would stop it. I am making 40s filling with a draft of 12.30. Please fix this up for me.

Young Spinner.

A New Invention.

Mr. W. E. Hammond, overseer of carding in Mills Nos. 1, 2 and 3 of the Pelzer Mfg. Co., Pelzer, S. C., is the inventor of a grinder guard for the protection of the traverse grinder when attached to the doffer.

The guard is so constructed as to act as a protector for the doffer and the traverse grinder at the same time and can be easily and readily attached. It also serves to protect the employees from injury by contact with the rapidly revolving machine during the grinding operation.

Shock Absorber.

It is said that in spinning filling the large breakage of ends occurs at the top of the wind or in other words just as the point of the cam goes over.

Part of the breakage is blamed to the shock caused by the change of the point of the cam and a New England mill man has recently invented what he calls a "shock absorber" which is applied to filling frames to prevent any shock however slight that may be caused by the cam point.

Those who have seen it in operation speak very highly of its efficiency.

Questions for Weavers.

A friend asked me to help him in the construction of 4-yard goods. Not feeling satisfied with the results, as I have had but little experience in weaving, I will appreciate it if some reader will answer the following:

What ounce lap would you use in making the goods

What draft of cards? What should be the weight of the sliver?

What draft for the first drawing? Weight per yard? What should be the draft for the second drawing? What draft for slubber and hank roving?

Would you make a finer slubber roving for filling than for warp? What draft for Int. frame and hank roving?

What draft for fine frame and hank roving warp?

Using single roving in spinning frames, what number yarn should warp be? What number yarn should filling be?

Width of goods 36 inches; 48x48 picks, weight to run 4 yards to the pound.

P. L. S.

That Hand.

The trouble the Satin and Satin Taffeta Finishers have had for so long a time is over. "That hand" which the trade is so anxious to have can be safely produced by using Bellicosa, the new Finishing Compound made by the Arabol Mfg. Co. of N. Y. Cty.

"Well, I declare," said Lot, as he realized that his wife had been turned into a pillar of salt. "That's a strange phenomenon. I always thought the old lady was largely peppery."

Whereupon he dug a salt cellar and laid her gently away therein before moving on.—Exchange.

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Newton Cotton Mills.

Newton, N. C.

W. F. Bacon	Superintendent
J. T. Honeycutt	Carder and Spin.
M. D. Sides	Master Mechanic

Ivey Mills Co.

Hickory, N. C.

G. F. Ivey	Superintendent
J. S. Downum	Carder and Spinner
C. E. Cole	Weaver
G. J. Leonard	Cloth Room
G. T. Barger	Night Carder & Spin.
C. T. Tolbert	Master Mechanic

Whitnel Cotton Mill Co.

Whitnel, N. C.

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J. L. Price	Carder
J. P. Toomey	Spinner
Jac. Mauney	Night Carder & Spin.
Henry Dilling	Master Mechanic

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Hudson, N. C.

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G. H. Messick	Master Mechanic

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All kinds Sizing and Finishing Materials, Potato Starch, Dextrine, etc.

Bleaching Knit Goods

FOR bleaching knittings two principal methods are in current use, according as to whether the goods consist of animal or vegetable fibres, or mixtures of the two. With regard to wool and half-wool, one of the oldest processes is stoving, a process which is so cheap and simple that it is still extensively employed. All woolen goods, says H. Richard in "Oesterreichs Woollen and Leinen Industrie," must first be thoroughly washed and rinsed. The stoving is done with the goods as they come damp from the centrifugal, and takes from 12 to 15 hours, after which the goods are rinsed free from sulphur dioxide. A sulphur white is nearly always a cream white, so that to obtain a pure white it must be blued; this is done by adding a neutral aniline dye to the last rinse. In drying, care must be taken that stockings and garments generally retain their shape, and this is best done by drying under tension or on woollen shapes. It is important to keep stoved goods apart from others throughout the process. Even in the drying-room they must be kept away from other goods. Stoved goods must be dried at low temperatures, so that in order to ensure quick drying there must be a good circulation of air in the drying room. A temperature of 100 degrees F. should not be exceeded.

A modern process for bleaching knit goods consists in using peroxide of hydrogen or sodium. It is more expensive than stoving, but the white is better and more permanent. This bleaching is done in wooden-covered vats, and the water used must be soft; metal vats must be avoided. With hydrogen peroxide the bath is prepared with ammonia as usual, and the goods are entered cold, and heated by indirect steam to 100 degrees F. The bleaching takes from 10 to 12 hours, and the goods must be frequently stirred during the process. In the intervals the vat must be closely covered up, and the goods must be always below the surface. Variation of this process consists in using several peroxide baths, each for an hour or so at a time, centrifuging, and drying after each bath. It is claimed that this accelerates the bleaching, while the baths can be used again. Thus, when No. 1 batch is lifted from its first bleaching bath, No. 2 batch can be entered into the bath it has just left, and so on.

Sodium peroxide, which is thirteen times as rich in active oxygen as 10 vols. hydrogen peroxide, is generally preferred. It is a solid, and when cased up tightly will keep almost for ever. When it is taken out of the storage receptacles for use, a very clean and dry metal scoop must be used, and care must be taken not to spill the powder, on account of fire risk. The peroxide must be dissolved in cold soft water, slightly acidulated with sulphuric acid by scattering it in small portions at a time over the surface, and stirring with a wooden stick. The acid is necessary to neutralize the caustic soda set free by the action of the water on the sodium peroxide. For every 100 litres of bleach bath from 600 to 700grms. of concentrated sulphuric acid are wanted. Attention must be paid to the gradual addition above referred to of the peroxide to the bath. Want of caution in this respect must necessarily cause loss of oxygen, and may result in the bursting of the vat. In spite of this danger it is usual to make the baths twice as strong as as absolutely necessary, taking the goods out the moment the desired result is achieved, and using the same bath again for a second batch. The production of good bleaching results with sodium peroxide is possible only with special care. Before the goods are entered into the bleach bath it must be made certain, by testing with litmus paper, that the bath is alkaline. Should it not be so, ammonia must be cautiously added until it is.

Steam coils must not be of iron; lead is preferred. Even iron rails should be avoided and replaced by wooden wedges. All the water used should first be filtered through a clean woollen bag to prevent any sediment reaching the bleach bath. After bleaching, thorough rinsing with clean water is required; then a slight souring with sulphuric acid is followed by another thorough rinsing. In drying, a temperature of 140 degrees F. must never be exceeded.

In small works permanganate is sometimes used as a bleaching agent. The bath is prepared by dissolving 2 to 3 lbs. of the permanganate in 1000 gals. of water. The clean goods are entered into this and worked for one hour. They are then left in the bath for two hours more. To prevent any injury to the wool fibre the bath must not be used above a temperature that can be endured by the hand. The lifted goods are brown, and are rinsed and finished in a bath to which 1 1-2 to 2 gals. of sulphurous acid solution have been added per 100 gals. of water. Rinsing follows with water, with a first rinse of lukewarm weak soda if necessary; blueing can finally be resorted to if required.

Cotton knittings are always, or nearly always, bleached at the boil, and with bleaching powder. Opinions vary greatly as to the strength required and the time to be given, even for the same class of goods. Much depends upon other circumstances, such as the nature of the goods and the strength of the bleaching powder. The goods must, of course, be first scoured. All bleaching methods presuppose clean fibre, which means in the case of cotton freedom of the cellulose from cotton resins, etc. — from everything, in fact, except what the bleaching has to remove, which is, of course, coloring matters only. The function of the bleaching is confined to such matters, and it must be allowed a free hand without being wasted by the presence of substances with which it ought not to be brought into contact. It is only under these conditions that it does not tender the fibre.

The best scour is the well-known soda-lime boil. This does not tender cotton fibre, but by effecting a cerain degree of mercerization improves its lustre. The goods must be properly packed in the kier according to the standard rules, and the circulation of lye must be thorough. After scouring thoroughly, rinse the goods with cold water, and then bleach. Especial care must be taken that if lime has been used in the kier every trace of it is rinsed out. Any lime left is soon in the form of carbonate, and has a prejudicial effect on the subsequent stability of the fibre by acting on it mechanically whenever any two parts are rubbed together. The chloring should be done in deal vats lined with cement, or in enamelled iron, or in earthenware vessels. The bleach solution is filtered into the water till the bath marks 1 1-2 to 2 degrees Be. Work the goods in it for half-an-hour, and let them lie half-an-hour longer in the bath. Electrolytic bleach—i. e., sodium hypochlorite — is preferable to bleaching powder, not because of its method of preparation (electricity has nothing to do with the bleaching process), but because it is purer and more active, whether it is prepared electrolytically or not. The drying of cotton knitted goods after bleaching and rinsing must be carried out with the same precautions as in the case of knitted articles generally.—Textile Manufacturer of Manchester, England.

Scientific Management.

Probably in no industry is the organization of employers and employes so complete as in the textile industry, nor are there in general such complete lists as to the payment of wages or the arrangements as to the prices of raw material and finished product so well known. All these factors point to a high degree of organization; but in view of the theories put forward by many expert organizers of works in the States, one is tempted to ask: Is the inside organization of the textile industry so thorough as it might be? This question is prompted by a perusal of the work revived relative to "Principles of Scientific Management." Scientific management is a wide term, but in the opinion of Mr. Taylor, the author of the work mentioned above, and Mr. Gantt, another investigator on similar lines, and to whose investigations we have previously referred, thereare few viously referred, there are few its broadest sense. From the instances given, however, its application in the textile industry would, we believe, result in great economies, not only of labor, but also of material.

That the greatest prosperity can only exist as the result of the greatest possible productivity of the employes and the machines of the establishment that is, when each employee and each machine are turning out the largest possible output—is apparent; [illegible] how many establishments do these conditions obtain? Maximum productivity is far from being common in our spinning and weaving mills, and in general this may be traced to the fact that operatives are permitted to engage in tasks for which they are unfitted, and that the management takes no interest or care in the training and development of their employes. The average weaving shed may be taken as an example. Learners are placed in the charge of persons who do not possess the necessary qualifications for the training of an efficient weaver. Often, young operatives are left to learn the rudiments of weaving as best they can, with the result that they become indifferent weavers, and are a source of loss to the employer. If, however, Mr. Taylor's plan was put into operation, each operative would be trained how best to tend looms as to give the greatest production. He would, under his scheme, standardize the necessary movements made when inserting a fresh shuttle into the loom, and the other incidental operations that occur in weaving, and as a result gain in production, whilst similar investigations would be made in other branches of the trade. Once these conditions are fixed, Mr. Taylor argues, maximum productivity resulting in maximum prosperity will be attained. In evidence of this it is stated that at least 50,000 workmen in the United States are employed under the system advocated by him, and they are receiving from 30 to 100 per cent. higher wages than are paid to men of similar calibre with whom they are surrounded, while the companies employing them are more prosperous than ever before. It is claimed that the output per man and per machine has also been largely inceased, and that in place of the suspicious watchfulness and the more or less open warfare which characterize the ordinary type of management, there is universally friendly co-operation between the management and the employes.—Textile Manufacturer of Manchester, England.

Clinton—Can you get in at nights without waking your wife?

Clubman—No; but I expect to be able to soon. I'm taking lessons of a burglar.—Exchange.

Baseball Anecdote.

"Curious episode, this. Seems a young fellow got excited at the ball game and hugged the young lady next to him, a perfect stranger. She had him arrested, but he told the judge that any man might do the same thing and his claim was upheld by expert testimony."

"And what was the sequel"

"Well, the sequel is rather interesting. The next day there were 5,000 girls at the ball game."—Washington Herald.

DIXON LUBRICATING SADDLE CO.
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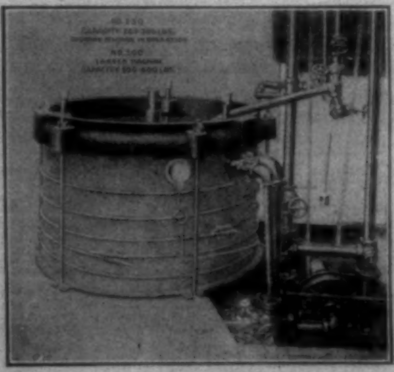

Sulphur—Developed—Vat Dyes
Done Equally Well
RAW STOCK DYEING—The cotton goes to cards in as good condition as directly from bales. Is not rolled into balls and strings.
BLEACHING—Bleached and washed PERFECTLY CLEAN—FREE FROM CHLORIN OR ACID. 3½ hours to batch. Is not pounded and twisted into practically waste.
SKEIN DYEING—No Boiling Out—No Tangles—Yarns are left Smooth and in perfect condition for winding, knitting, etc.
HOSIERY—Recommended size of machine does 300 pounds to batch, SULPHUR OR DEVELOPED BLACKS. It is not Roughed—No Singeing required—No Sorting—No Damaged.
15 to 20 per cent Saving in Drugs
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118 Ocean Avenue
Atlantic City, N. J.

SOUTHERN TEXTILE BULLETIN

Offices: Room 912 Realty Building, Charlotte, N. C.
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DAVID CLARK
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D. H. HILL, Jr.
Associate Editor

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

ADVERTISING

Advertising rates furnished upon application.

Address all communications and make all drafts, checks and money orders payable to the Clark Publishing Company, Charlotte, N. C.

Entered as second class matter March 2nd, 1911, at the post office at Charlotte, N. C., under the Act of March 3d, 1879.

THURSDAY, January 18

Commercial Agent's Reports.

We began publication in our first issue of this month of a report of R. M. Odell, Commercial Agent of the Department of Labor and Commerce on cotton goods and cotton manufacturing in Spain.

The report is well worth reading and shows that Mr. Odell is doing very efficient work as we consider it an able and carefully prepared document.

Mr. Odell is from Concord, N. C., and was appointed as one of the two men who succeeded W. A. Graham Clark when he resigned the position of Commercial Agent to become textile expert for the Tariff Board.

Mr. Odell has taken up the work where Mr. Clark left off and has already investigated Spain, Portugal and Italy and when we last heard of his work he was in Russia.

The reports of these Commercial Agents should be of great value to the textile industry of this country as they show not only the manufacturing conditions of competitors but also give reliable information relative to the kind of goods consumed in each country.

Advertising.

Very few machinery or supply manufacturers can afford to advertise in all of the textile journals and the problem of selecting the right journal is a perplexing one to many advertising managers.

At the present time there are three textile journals and one textile paper in the South and seven textile journals in the North exclusive of those devoted exclusively to knit goods, silk or dye stuffs.

The advertising manager has therefore ten textile journals from which to make his choice and must listen to ten advertising solicitors each of whom claims that he represents the best medium for reaching the mills.

He must also listen to claims of circulation made by advertising solicitors who often have never seen the subscription list and really know neither the number of subscribers or the class of people reached.

Even if the subscription list were shown, the prospective advertiser could find out very little from it except the number of names that it contained.

It is a very simple matter to pad a subscription list and nothing except a detailed examination will show the number of bona fide subscribers and also whether or not they are active men in the textile industry. Subscribers who are engaged in other lines of work and are only taking a journal because it was included in some cut-price clubbing offer are of no value to a man who is advertising textile machinery and a circulation among mill operatives or those below the position of second hand is desired by only a few advertisers.

The advertising manager in most cases wishes to reach both the Northern and Southern textile fields and the wisest realizing the different conditions that prevail in the two sections use Northern journals for the North and Southern journals for the South.

Each section has its journals and while some try to straddle and claim large circulation in both sections their claims will not bear examination.

In the South the mill people are all of one race and all speak one tongue with the result that there is an intimate acquaintance among them and alhtough a man be an overseer in an Alabama mill he knows the overseers and superintendents of many of the North Carolina mills.

It is sound logic to say that the journal which is read is the journal which carries the reading matter most desired.

The mill people of all sections of the South are interested in the changes that are continually taking place among the superintendents and overseers and the journal that carries the livest news is the journal most read.

It is also sound logic to say that the journal which is most read is the best advertising medium.

While very few superintendents or overseers do the actual buying we know the kind of machinery or supplies bought is usually the result of their recommendation.

We contend that, to reach the South, a Southern journal must be used.

We also contend the Southern Textile Bulletin, because it carries the most live news, is the most read journal that reaches the Southern mills and is therefore the best advertising medium.

The subscription list of the Southern Textile Bulletin, being strictly paid-in-advance is not padded and is composed of the live men of the textile industry.

Cotton Goods In Siam.

The value of the cotton goods imported into Siam during the fiscal year, ending March 31, 1911, was $4,361,058, against $4,242,121 in the preceding year. Cotton goods lead all other imports in value, and have for the last eight years shown little variation in amount. Diminution in this trade is not to be expected in the near future, as home production is not likely to prove profitable in a country where practically all the raw material, machinery, fuel and labor would have to come from abroad.

The American cotton goods trade with Siam for the year under review amounted to the insignificant sum of $516, and the articles imported from the United States have thus far been confined to "unenumerated cotton goods," showing that no systematic effort has been made to enter the market. The greater part of the cotton goods imports comes from Great Britain and dependencies, but other European countries are yearly entering more and more into this trade.—

Much Interest in Tariff Report.

Much interest among the cotton mill men of the South centers about the action of the tariff committee of the American Cotton Manufacturers' Association during the first half of 1912 by reason of the effect that it will have upon Congress when the national body comes to consider the great tariff question, particularly as it relates to the cotton goods schedules. The tariff committee of the American Cotton Manufacturers' Association is composed of Messrs. R. M. Miller, Jr., chairman, Stuart W. Cramer and A. H. Bahnson of Charlotte, D. Y. Cooper, J. D. Hammett, J. H. Morgan, Charles D. Tuller, T. I. Hickman, Scott Maxwell, T. L. Wainwright, A. W. McLellan, J. C. Saunders, L. D. Tyson and Paul J. Mars. This committee was appointed to act with similar committees from the National Association of Cotton Manufacturers and the Arkwright Club of Boston, with a view to securing a just and conservative revision of the schedule on cotton goods by Congress and did effective work during the past year. The question has never been settled for President Taft took the position that nothing should be done until the Tariff Board had reported. It is expected that something really worth will be done at the present session of Congress. The coming six months will be important ones in the history of the tariff question and vital to the manufacturers for the reason that the mills are just now getting their noses above the water after a period of depression which started with the so-called panic of 1907 and which has con- of the mill men now is that any revision, unless very carefully taken and where the need is really great would have the effect of bringing on additional troubles and result in great disaster to the mill.

Charlotte Observer.

PERSONAL NEWS

H. G. Clay has been promoted to second hand in spinning at the Adelaide Mills, Anniston, Ala.

W. W. Smith has resigned as second hand in carding at the Inverness Mills, Winston-Salem, N. C.

C. H. McLand has resigned as second hand in spinning at the Inverness Mill, Winston-Salem, N. C.

G. W. Russell has accepted position as overseer of weaving at the Huntsville (Ala.) Cotton Mills.

M. I. Sholer is now bookkeeper at the Osage Mills, Bessemer City, N. C.

F. D. Rothell has accepted a position with the Walhalla (S. C.) Cotton Mills.

Henry Schrimpshire has resigned as overseer of spinning at the Huntsville (Ala.) Cotton Mills.

S. T. Kerr, of Nashville, Tenn., is now overseer of spinning at the Wariota Mills, of that place.

D. W. Knight has resigned as overseer of spinning with the Rocky Mount (N. C.) Mills.

J. P. McElvin has resigned as superintendent of the Cedartown (Ga.) Cotton Mills.

L. H. Hamrick is now overseer of twisting, winding and baling at the Bibb Mill No. 2, Macon, Ga.

C. L. Duncan is now overseer of spooling and warping at the Clinton (S. C.) Cotton Mills.

W. B. Bailey is now second hand in spinning at the Hamer (S. C.) Cotton Mills.

F. G. Parker has resigned as superintendent of the Fidelity Mills, Charlotte, N. C., and is now located at New London, N. C.

M. N. Pledger has resigned as master mechanic and engineer at the Piedmont Mill, Egan, Ga., and accepted a similar position with the Myrtle Mills, Atlanta, Ga.

Otho Taylor has been promoted from the spinning room to overseer of dyeing at Kosciusko, Miss.

J. B. Barnhardt is now overseer of weaving at the Pauline Mill, Kings Mountain, N. C.

E. T. McCall is now second hand in weaving at the Orr Mills, Anderson, S. C.

Arthur Parker, from Greenwood, S. C., is now fixing looms at Honea Path, S. C.

E. N. Dellinger has resigned as overseer of carding at the Elk Mills, Fayetteville, Tenn.

G. H. Wentz has resigned as overseer of spinning with the Marble City Mills, Sylacauga, Ala.

C. L. Becknell, of Fort Mill, S. C., has accepted a position with the Aragon Mill, Rock Hill, S. C.

J. W. Eddy is now superintendent of the Bibb Mfg. Co., Columbus, Ga.

G. H. Godfrey has resigned his position as overseer of the cloth room at the Norriss Cotton Mills, Cateechee, S. C.

O. L. Grice has resigned his position as superintendent of the Annot Cotton Mills, Kings Mountain, N. C.

D. P. Hardin has accepted the position of master mechanic with the Osage Mfg. Co., Bessemer City, N. C.

Platt Deaver, formerly overseer of weaving with the Hope Mills (N. C.) Mfg. Co. has accepted position as designer with the same mills.

Will Watts, from the Poe Mills, Greenville, S. C., has accepted the position as section hand in spinning at the Greer (S. C.) Mfg. Co.

G. A. Stafford has resigned as loom fixer at the Highland Park No. 1. Mills, Charlotte, N. C., and accepted a similar position with the Wylie Mills, Chester, S. C.

CARDS, DRAWING,
SPINNING FRAMES,
COTTON MILL MACHINERY
MASON MACHINE WORKS
TAUNTON, MASS.
EDWIN HOWARD, Southern Agent
Charlotte, N. C.
COMBERS, LAP MACHINES
MULES, LOOMS.

L. Y. Lunnaway, of Scottdale, Ga., has accepted position as overseer of weaving at the Scottdale (Ga.) Cotton Mills.

J. G. Leslie has been promoted from loom fixer to overseer of weaving at the Franklin Mill, Greer, S. C.

L. D. Green has been promoted from second hand to overseer of weaving at the Chadwick-Hoskins Mills, Charlotte, N. C.

Henry Harrill, from Long Shoals, N. C., is now grinding cards at the Harborough Mfg. Co., Bessemer City, N. C.

W. E. Cable, from Burlington, N. C., has accepted position as roller coverer at the German-American Mills, Draper, N. C.

General Weathers has accepted position as second hand in spinning at the Apalache Mills, Arlington, S. C.

O. J. Lydia has resigned his position as second hand in twisting at the Flint Mfg. Co., Gastonia, N. C., and is now located at Maiden, N. C.

W. W. Lacey has resigned as loom fixer at the Alice Mills of Easley to accept similar position at Williamston, S. C.

G. C. Hart has resigned as second hand in spinning at Iva, S. C., to accept similar position with the Orr Mills, of Anderson, S. C.

J. L. Kerley, formerly overseer of carding at the Osage Mfg. Co., Bessemer City, N. C., has again accepted that position.

W. A. Duke has resigned as overseer of carding at the Saxony Mills, Lincolnton, N. C., to accept similar position with the Majestic Mills, Belmont, N. C.

J. C. Hambright has resigned as loom fixer at the Orr Mills, of Anderson, S. C., to accept similar position with the Brandon Mills, of Greenville, S. C.

C. W. Parrot has resigned as overseer of spinning at the Victor Mills, Greer, S. C., and is now superintendent of the Gluck Mills, Anderson, S. C.

James Unning has resigned as section hand in spinning at the Adelaide Mills, Anniston, Ala., and is now overhauling at the Woodstock Mills, of the same place.

Andrew York, from the Pomona Mills, Greensboro, N. C., has accepted position as second hand in carding at the Inverness Mills, Winston-Salem, N. C.

J. L. Jarvis, second hand in warping at the Inverness Mills, Winston-Salem, N. C., is now second hand in filling and spooling in addition to the warping.

Thos. R. Morton, overseer of carding and spinning at the Inverness Mills, Winston-Salem, N. C., has recently been visiting in Atlanta, Ga.

W. E. Ford has resigned as overseer of spinning with the Girard (Ala.) Cotton Mills and accepted a similar position with the Marble City Mills, Sylcauga, Ala.

R. W. Hembree has resigned as section hand in spinning at Piedmont, S. C., to accept position of second hand in spinning with the Jackson Mills, of Iva, S. C.

G. A. Stratford has resigned his position with the Hihgland Park Mill No. 3, Charlotte, N. C., and is now fixing looms at the Wylie Mills, Chester, S. C.

OVERFLOW PERSONALS PAGE 16

CAPACITY 1000 POUNDS LINT PER HOUR.

"SLOW DOWN YOUR BEATERS"
"EVEN RUNNING OF NUMBERS!"
THE C. O. B. IS RESPONSIBLE FOR BOTH

"I think I can safely eliminate one process of beating and reduce the speed of the other three beaters 20 per cent. and get less waste, sending the cotton into the mill in much better shape than by the old system.

My Boss Spinner said: "Mr. Wallace, I am utterly surprised at the regularity of numbers and cannot account for it."

Mr. Wallace gives all credit to the work of the C. O. B. for *this success in his mill*, because it cleans, opens and fluffs his cotton in a proper manner."

Extracts from Mr. T. B. Wallace's remarks in favor of the C. O. B. machine at the Southern Textile Association Meeting at Greenville, S. C., July, 1911.

MANUFACTURED BY
EMPIRE DUPLEX GIN COMPANY, 68 Willlam St., New York
Southern Representative J. S. COTHRAN, Charlotte, N. C.

MILL NEWS ITEMS OF INTEREST

Landis, N. C. — At the annual meeting of the stockholders of the Linn Mills, a semi-annual dividend of 5 per cent. was declared. All of the old officers of the company were re-elected.

Trion, Ga.—February 3 has been set for the hearing of matters relative to the bankruptcy of the Trion Mfg. Co., and of A. S. Hamilton, formerly president of the mills.

The hearing is due to take place before Judge William T. Newman, in Atlanta. In the meantime the mills at Trion are being operated by the receiver, J. P. Cooper.

Concord, N. C.—Contractor W. A. Foil has closed a contract with T. C. Thompson & Co., who are erecting a big mill at Whitmire, S. C., to do the excavating work for the structure. Mr. Foil will send a large number of teams and a full construction equipment there in a few days and work will begin immediately on their arrival.

Huntsville, Ala. — The annual meeting of the stockholders of the Huntsville Knitting Company will be held at its office in Huntsville on Tuesday, the 23rd day of January, for the election of a board of directors, to serve until their successors are elected, and for the transaction of such other business as may come before it.

Concord, N. C. — At the January meeting of the stockholders of the Young-Hartsell Mill the following officers were elected: W. W. Flowe president; A. J. Yorke, vice president; J. L. Hartsell, secretary and treasurer; A. J. Yorke, Dr. R. S. Young, Dr. W. C. Houston, W. H. G. Belt, C. B. Wagoner, J. W. Cannon, P. B. Fetzer, B. C. Ely, Jr., W W. Flowe and J. L. Hartsell, directors.

Charlotte, N. C.—O. A. Robbins, of this place, will be the architect-engineer for the Thayer Manufacturing Company, of Charlotte, and is the principal organizer of that company (of which he is secretary and treasurer.) He will soon complete plans and specifications for the new company's buildings. These are to be designed to be equipped with 25,000 spindles and 500 looms for the manufacture of fine fancy cotton goods.

Greenwood, S. C. — The Panola Cotton Mills, of this place, are about ready to commence the manufacture of cloth. The company recently completed its plant and has voted an issue of preferred stock to the amount of $110,000, its capital stock having been $300,000. The buildings are of reinforced construction and the machinery includes 10,000 spindles and 300 looms, etc., driven by electric power.

Haw River, N. C.—The Regina Hosiery Manufacturing Company has about completed its additional structure, which is 50 by 150 feet. This building is one story high and is being equipped with 80 knitting machines for the manufacture of men's and women's hosiery. An accompanying improvement has been the installation of a dyeing and finishing department. These improvements will materially increase the facilities of the Regina Company for the production of hosiery.

Graniteville, S. C.—The Graniteville Manufacturing Co. has completed its previously announced betterments, involving an investment of approximately $125,000. Its new machinery includes 10,000 ring spindles to replace mule spindles; 5,000 additional ring spindles, 20 cards, 8 roving frames, 2 slubbers, turbine steam condenser, etc. Heretofore the company has had an equipment of 45,,922 ring spindles, 10,752 mule spindles, 1698 narrow looms.

Charlotte, N. C.—The stockholders of the Elizabeth Mills held their annual meeting last week in the office of the corporation on East Fourth Street. After an examination of the operations of the past year, the customary semi-annual dividend of 5 per cent. on a capitalization of $100,000 was ordered paid. Officers were then elected as follows: Robert M. Miller, Jr., president and treasurer; Vinton Liddell, vice president, and Baxter Ross, secretary. The year was a very successful one in spite of the general hard times obtaining in the textile trade.

Atlanta, Ga. — The Exposition Cotton Mills, of this city, have about completed their two-story, 100x213 foot, mill construction building, as an addition to the company's plant. F. D. Milstead, of Atlanta, Ga., was the architect for the building. It will be used for a loom shed and was erected at a cost of about $20,000. Some time ago it was announced that the Exposition Company was planning to add 10.000 additional spindles and accompanying looms. Up to the time of the enlargement the company was operating 56,000 spindles and 1 ,512 looms on the production of sheeting and shirting.

Gastonia, N. C. — The annual meeting of the stockholders of the Arlington Cotton Mill was held in the up-town offices of the company. G .W. Ragan's formal resignation as treasurer was tendered and accepted. As noted last week Mr. Ragan has sold the larger part of his holdings in this mill with a view to retiring from its active management. In the election of directors three new men were chosen, namely: L. F. Groves, H. M. Cleveland, and J. Lee Robinson, the others being L. L. Jenkins, L. L. Hardin, C. E. Adams and D. R. LeFar. The directors then elected officers for the ensuing year as follows: President, L. L. Jenkins; vice president, J. Lee Robinson; treasurer, L. F. Groves; secretary, L. L. Hardin. The usual semi-annual dividend of five per cent. was ordered paid. During the past year additional machinery has been installed including combers for making combed yarns. In the future L. F. Groves, treasurer, and L. L. Hardin, secretary, will have charge of the active operation of the mill.

Barnesville, Ga.—Construction is progressing on the previously announced enlargement of the Aldora Mills' plant at this place. This enlargement is a two-story, 100x160-foot brick building, costing about $18,000. It will be equipped with sufficient looms to enable the company to weave into cloth the present output of its 10,000 spindles. A total investment of probably $150,000 will be required for this Aldora enlargement. F. D. Milstead, of Atlanta, Ga., is the company's architect for this new building.

LaGrange, Ga.—During the present month the Dunson Mills will begin the manufacture of cotton cloth, the daily output to be 13,000 pounds. Details of the company's organizations and plans have been previously announced and construction progress noted. The plant is equipped with 20,000 spindles and 500 looms, carding and picking machinery, 1,200 horse-power steam plant, etc., for the manufacture of ducks, drills, etc. This machinery cost about $300,000 and the buildings cost $120,000. The main structure is two-stories high, of brick and cost about $96,000.

Opelika, Ala.—The annual meeting of the stockholders of the Opelika Cotton Mills was held last week in this city.

The past year was very successful and very satisfactory to the stockholders and the reports show that some profits were made although there was a depression in the mill business part of the year.

It is very interesting to note that the Opelika Cotton Mills were run full time the entire year, although a number of others were forced to close down part of the time.

New machinery will be installed in the near future.

The old board of directors were re-elected as follows:

W. T. Andrews, J. B. Greene, C. C. Torbet, H. H. McCall, M. M. McCall, B. B. Ross, of Auburn, and E. M. Oliver, of LaFayette.

The old officers of the mill were also re-elected by directors.

H. H. McCall, secretary, is continuing to act as superintendent.

Brevard, N. C.—The Brevard Cotton Mills have taken over the Transylania Cotton Mill Co., and are about to operate the plant of 4,500 spindles, etc., for manufacturing cotton yarns. This new company's organization for this purpose was announced in November. The new organization is capitalized at $100,000 and its officers are Greenville (S. C.) men who purchased the Transylvania property some months ago. W. C. Cleveland is president and treasurer and J. H. Williams is vice-president and secretary.

St. James City, Fla.—The Sisal Hemp and Development Company are rapidly completing their plans for their recently mentioned plant to have a daily capacity of three tons of lath yarn and rope. The factory building will be of frame and corrugated metal costing about $5,000. The machinery will include fifty spinning jennies, etc. This company's general plan to grow sisal hemp and manufacture cordage was recently outlined. Allen McIntosh is the president, and Geo. Lawrence, of Jacksonville, Fla., is vice-president of the company. O. W. Knowles is general manager and sisal expert.

Gastonia, N. C.—The stockholders of the Trenton Mill held their annual meeting last Wednesday afternoon, Jan. 10th, at 2 o'clock. Directors for the ensuing years were elected as follows: L. L. Jenkins, Frost Torrence, H. F. Forbes, E. N. Lineberger and J. K. Dixon. The officers reported that the mill had had a good year, and that the outlook for the coming year was a bright one. The directors elected the following officials for the ensuing year: President and treasurer, J. K. Dixon; vice president, L. L. Jenkins; secretary, R. N. Pegram. A. M. Dixon was appointed superintendent by the president.

La Fayette, Ga. — The annual meeting of the stockholders of the Walker County Hosiery Mill was held last week at the company's office, the stockholders finding that the mill had enjoyed a prosperous year during 1911, an eight per cent. dividend being declared to be paid February 1 and August 1.

The board of directors was named to consist of J. P. Shattuck, G. W. Davenport, R. L. Westcott, G. W. Little, P. D. Fortune, J. E. Patton and R. N. Dickerson. The old officers were re-elected—J. P. Shattuck, president; G. W. Davenport, vice president; A. R. Fortune, secretary and treasurer and general manager.

The year just past is reported to have been a very successful one for the mill and in addition to the amount that will be paid out in dividens neat sum will be carried to the surplus and depreciation funds.

Statesville, N. C. — Many stockholders' meetings have been held during the past few day. Wednesday the stockholders of the Turner Mills Company was held. The new mill on the Iredell side of the Catawba, at East Monbo, has only been in operation about a year and a good report was given. The mill on the other side of the river also had a good year. The directors and officers were re-elected for another year. The Paola stockholders met and elected E. Morrison, president; A. P. Steele(secretary and treasurer. Mr. Steele's election is the only change, he taking the place of W. D. McLelland who lives out of town.

Covington, Ga.—The Covington Mills are now using their recently completed addition, on which about $80,000 was expended for buildings and machinery. This company has added 100 by 160 room to its weave shed and a one-story 100 by 162 foot building to its spinning room, all the new work being of brick mill construction, with concrete floors. The new machinery includes about 4,000 spindles, 128 looms, etc., and increases by 25 per cent, the previous monthly capacity of 20,000 pounds of cloth. The company had been operating 18,000 spindles and 878 looms. About 40 operatives have been added, making 240 now at work.

Shelby, N. C.—Construction is progressing on the power plant building of the Lily Mill and Power Company of this place, for which the contract was awarded in November to the Goode Construction Co., of Charlotte, N. C. The new building will be of brick walls, with reinforced concrete roof, costing about $5,000. It will be equipped with steam machinery for operating 300 horse-power for emergency. The company's architect for the enlargement is R. C. Biberstein, of Charlotte, N. C. The Lily Mill has in operation an equipment of 5,000 ring spindles, driven by electric power. It produces combed Egyptian and Sea Island yarn.

Columbus, Ga.—The annual meeting of the stockholders of the Perkins Hosiery Mills was held last week, at which the reports of the officers were received. They showed that the mills had enjoyed a fairly prosperous year. The following board of directors were elected:

G. Gunby Jordan, C. L. Perkins, R. C. Jordan; J. B. Holst and J. D. Massey. At a subsequent meeting of the directors the following officers were elected:

President—C. L. Perkins.
Vice president—R. C. Jordan.
Secretary and treasurer—J. D. Massey.

TURBO TRADE MARK HUMIDIFIER
TURBO-HUMIDIFIER
(THE HUMIDIFIER WITH THE GUARANTEE)

Humidity Most Needed Now

This is the time of the year when humidity is most needed—when the fibre flies like quills on a porcupine. These are the days of oozy yarn—and conversation that don't print up well.

Reason—the fibre is gasping, literally gasping for a drink—of water. It came into your mill with water in it, and it demands justice—nothing but a drink.

Humidity means more in these next few months—in your pocketbooks—than all the rest of the year.

Get Turbofied and satisfied.

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CHARLOTTE, N. C.

Forsyth, Ga.—The Star Cotton Mill of this place will soon be ready to operate with increased equipment. This is a new company which was chartered in November to take over, operate and enlarge the Newton-Harp Manufacturing Company of Forsyth. The plant consisted of a brick structure, 70 feet wide and 210 feet long, equipped with 3,240 ring spindles and accompanying machinery for the manufacture of cotton yarns, the daily capacity being 3,100 pounds. Plans for improvement, as heretofore announced, were to add new spinning machinery to cost $12,000 and to install a new steam plant costing about $3,000.

Charlotte, N. C.—A charter was granted to the E. A. Smith Manufacturing Company, the incorporators being Messrs. E. A. Smith, Robert Lassiter and T. C. Guthrie, all of Charlotte, N. C.

The E. A. Smith Manufacturing Company will build a new cotton mill. Its authorized capital stock is $300,000. It has not been announced whether the new mill will be located in Charlotte or not, but the incorporators are Charlotte men and it is almost certain that this city will get the new mill.

The news that E. A. Smith is interested in the erection of a new mill here or near Charlotte, will be received with the keenest interest. He is one of the South's best known, most highly esteemed and successful mill men.

If the mill is located at Charlotte it will be the second large mill announced for Charotte for the new year, the first being the new mill of O. A. Robbins and associates.

Bladenboro, N. C.—A meeting of the citizens of the town was called recently for the purpose of discussing the erection of a cotton mill at this place to manufacture cotton yarns. A. A. Hilburn was elected chairman and Henry C. Bridger, Jr., secretary.

After several encouraging talks, with short speeches from the prominent citizens, the subscription books were opend and from the small number present there were 1,335 shares subscribed. The capital stock is $150,000 and there will be no trouble in soliciting the balance of stock.

This enterprise was discussed and partly subscribed for two years ago, but on account of the prevailing conditions of the cotton mill industry at that time action was deferred until now and every indication points to a completion in the near future. The promoters hope to be able to manufacture some of the 1912 cotton.

AMERICAN MOISTENING COMPANY
BOSTON, MASSACHUSETTS
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THE ONLY PERFECT SYSTEM OF AIR MOISTENING
COMINS SECTIONAL HUMIDIFIER
JOHN HILL Southern Representative, Third Nat. Bank Building, ATLANTA' GEORGIA

Cotton Goods Report

New York.—The demand on cotton goods is steadily broadening, with prices working up to a firmer basis owing to the orders coming forward. The advances named on well-known lines of denims are serving to still further stiffen up the market in the cotton goods ~~di~~vision. On some converted lines manufacturers are operating on a very narrow margin of profit, and it would not be surprising should advances be named in the immediate future. The firmness shown in the cotton market, and also by spinners of cotton yarns, serves to create steadier prices on the finished goods. Buyers of cotton yarns are still showing a decided unwillingness to meet spinners' price ideas, and are taking only small lots as they are absolutely needed. Knitters are known to be short of yarns, but up to date they have not secured sufficient business on their finished lines to force them to enter the yarn market for replenishing purposes. Prints are moving rather slowly, as there still appears to be a feeling on the part of buyers that price revisions may be made a little later on. Road salesmen out in search of additional spring business are sending forward moderate orders accompanied by encouraging reports as to the smallness of stocks with retailers and jobbers. Some buyers are arriving in this market in search of supplies, and for the purpose of looking over the market more closely. Business is improving slowly but steadily with the outlook for a better demand as the season progresses.

Trading in Fall River was moderate in amount but steady in the print cloth market last week. Manufacturers declined to accept offers for less than quoted prices and the tendency in this respect became firmer than a few weeks ago. The demand at no time during the week was heavy, and for the most part bidding was for quick deliveries that mills were unable to make.

The total stock on hand at all the mills is not heavy at present and it is so distributed over a large variety of styles that it is almost impossible to secure a large amount of any one style for spot delivery. The tendency to hold on to goods unless quoted prices are met is strengthened by the fact that the manufacturers are uncertain how the operatives will finally act under the reduction in wages due to the new 54 hour law. The only strike yet reported was at the No. 1 mill at the American Thread Co., but may arise at any time. Although most contracts have a strike clause incorporated, manufacturers as a rule do not like to take advantage of it. They hesitate, consequently, to engage goods for more than a month or two ahead with the chance of being unable to deliver them.

Sales for the week totaled 115,000 pieces, of which 15,000 pieces were spots for January deliveries and most of the remainder are to be delivered in February and March. All the goods sold were odds. Quotations are as follows: 28-inch, 64x64s, 3 1-8 cents, nominal; 2,-inch, 64x60s, 3 1-8 cents, nominal; 27-inch, 64x60s, 2 7-8 cents: 27-inch, 58x56s, 2 1-2 cents; 27-inch, 56x52s, 2 3-8 cents; 38 1-2-inch, 64x64s, 4 1-4 cents; 39-inch, 68x72s, 5 cents.

Prices on cotton goods were quoted in New York as follows:

Pt clths, 28-in, std	3 1-8		—
28-in, 64x60s	3		—
Gray goods, 39-in, 68x72s	4 7-8		5
38 1-2-in, stds	4 1-3		—
4-yd, 80x80s	5 7-8	to	6
Brown drills, stds	7 1-4	to	7 1-2
3-yard	7		—
4-yard, 56x60s	5 3-8	to	8 1-2
Denims, 9-ounce	12 1-2	to	16
Stark, 8-oz. duck	12 1-2		—
Hartford, 11-oz. 40-in. duck	15 1-3		—
Tickings, 8-ounce	12 1-2		—
Std fancy prints	4 3 4		—
Fine dress ginghams	7	to	9 1-4
Kid fin. cambrics	3 3-4	to	4
Cotton Middling Uplands:			
Spot, New York			9.65
New Orleans			9 5-8
Galveston			10

Weekly Visible Supply of American Cotton.

January 12, 1912	4,887,481
Previous week	4,854,547
Last year	4,227,856

Weekly Cotton Statistics.

New York.—The following statistics on the movement of cotton for the week ending Friday, January 12, were compiled by the New York cotton exchange:

WEEKLY MOVEMENT.

	This Yr.	Last Yr.
Port receipts	354,269	254,502
Overland to mills and Canada	28,805	28,225
Southern mill takings (estimated)	85,000	50,000
Loss of stock at interior towns	44,538	39,959
Brought into sight for the week	432,536	292,768
TOTAL CROP MOVEMENT		
Port receipts	7,827,371	6,575,946
Overland to mills and Canada	438,402	586,725
Southern mill takings (estimated)	1,555,000	1,320,000
Stock at interior towns in excess of Sept. 1	721,050	664,629
Brought into sight thus far for season	10,541,823	9,157,300

Six thousand nine hundred and twenty-nine bales added to receipts for the season.

GRINNELL WILLIS & COMPANY
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C. L. SMITH, President
JOHN W. TODD, Vice-President and Secretary

Spinning and Twister Ring Specialists
Whitinsville Spinning Ring Co.
Whitinsville, Mass.

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HICE MANUFACTURING COMPANY
JOHNSON CITY, TENNESSEE

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The U. S. Government report shows that the value of brick and tile manufactured from clay in Pennsylvania for 1909 exceeded twenty million dollars.
We can show limitless deposits of superior clay in easy reach of reasonable priced electric power, where transportation facilities offer a very wide distribution.
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J. A. PRIDE
General Industrial Agent, Seaboard Air Line Railway
NORFOLK, VIRGINIA.

The Yarn Market

Philadelphia, Pa. — There was a fair volume of sales in the yarn market during the past week. In general, however, the buying was in limited volume, with a considerable amount booked for future deliveries.

Some manufacturers, particularly knitters, on account of the advance of cotton prices, bought considerable quantities of yarn, for both near and far deliveries. Deliveries of old contracts were generally good.

The demand for Eastern yarns was not very strong, as knitters were not willing to pay the prices which spinners were asking. As a result most of the business was going to Southern mills. There are a few underwear manufacturers who believe that the advance in cotton is only temporary and that before they need yarns for the heavyweight season, cotton will be selling for 8.50 or less.

The demand from weavers was mostly for yarns for quick or spot deliveries. They are not willing to pay the prices which spinners are asking for future deliveries. While some of the manufacturers are well covered on yarns until June, and later, others are not. The latter class believe that the hand to mouth policy is the only safe buying for the next few months.

Southern Single Skeins.

8s	15 1-2—16
10s	16 —
12s	16 1-2—
14s	16 1-2—17
16s	17 —17 1-2
20s	17 1-2—18
26s	19 1-2—
30s	20 1-2—

Southern Two-Ply Skeins:

8s	16 —
10s	16 1-2—
12s	16 1-2—
14s	17 —
16s	17 —18
20s	18 —18 1-4
24s	19 1-2—
26s	20 —
30s	20 1-2—21
40s	20 1-2—21
40s	26 —27
50s	32 —
60s	39 —40

Carpet and Upholstery Yarn in Skeins:

8-3 hard twist	15 —16
8-4 slack	17 —
9-4 slack	17 1-2—

Southern Single Warps:

8s	16 —
10s	16 —
12s	16 1-2—
14s	16 1-2—
14s	16 1-2—
16s	17 —17 1-2
20s	17 —17 1-2
24s	19 —
26s	19 1-2—
30s	21 —
40s	26 —28

Southern Two-Ply Warps:

8s	16 —16 1-2
10s	16 1-2—17
12s	17 —
14s	17 1-2—
16s	17 1-2—17 3-4
20s	18 —19
24s	19 1-2—
2Cs	50 —
30s	20 1-2—21
36s	23 1-2—24
40s	26 —28
50s	32 —33

Southern Frame Spun Yarn on Cones

8s	16 —
10s	16 —16 1-2
12s	16 1-2—17
14s	17 —
16s	17 1-2—
18s	17 1-2—18
20s	18 1-2—
22s	18 1-2—19
24s	19 —
26s	20 —
30s	21 —21 1-2
40s	25 1-2—

Single Skeins Carded Peeler:

20s	21 1-2—22
24s	24 —
26s	24 1-2—
36s	28 —
40s	29 —29 1-2
50s	36 —

Two-Ply Carded Peeler in Skeins:

20s	22 1-2—23
22s	23 —23 1-2
24s	24 —
26s	24 1-2—
30s	25 —25 1-2
30-1 t's	30 —
36s	27 1-2—28
40s	29 1-2—30
50s	35 1-2—36
60s	42 —42 1-2

Single Combed Peeler Skeins:

20s	26 —
24s	27 —27 1-2
30s	28 1-2—29
40s	36 —
50s	44 —
60s	50 —51

Two-Ply Combed Peeler Skeins:

20s	26 1-2—
24s	27 1-3—
30s	29 —
40s	36 —
50s	44 —
40s	50 —54
70s	0 —62
80s	69 —71

A. M. Law & Co.

Spartanburg, S. C.

BROKERS

Dealers in Mill Stocks and other Southern Securities

South Carolina and Georgia Mill Stocks.

	Bid	Asked
Abbeville Cotton Mills	70	75
Aiken Mfg. Co.	85	....
American Spinning Co.	..	162
Anderson C. Mills pfd	90	....
Aragon Mills	....	65
Arcadia Mills		93
Arkwright Mills	....	100
Augusta Factory, Ga.	60	65
Avondale Mills, Ala.	116	120
Belton Cotton Mills	....	130
Brandon Mills	...	93
Brogon Mills	....	61
Cabarrus	130	....
Calhoun Mills	....	61
Capital Cotton Mills	80	85
Chiquola Mills	....	167
Clifton	75	85
Clinton Cotton Mills	....	125
Courtenay Mfg. Co	....	95
Columbus Mfg. Co., Ga	....	95
Columbus Mfg. Co., Ga	92½	100
Cox Mfg. Company	....	70
Eagle & Phenix Ga.	117	....
Easley Cotton Mills	160	165
Eneoree	...	45
Enoree Mfg. Co., pfd.	....	100
Enterprise Mfg. Co., Go	75	....
Exposition Cot. M., Ga.	....	210
Fairfield Cotton Mills	....	70
Gaffney Mfg. Co.	...	60
Gainesville C. M. Co. Ga	....	80
Glenwood Mills	....	141
Glenn-Lowry Mfg. Co.	101	....
Glenn-L. Mfg. Co., pfd	....	95
Gluck Mills	....	100
Granby Cot. Mills, pfd.	....	38
Graniteville Mfg. Co.	160	165
Greenwood Cotton Mills	57	59
Grendel Mills	....	100
Hamrick Mills	100	....
Hartsville Cot. Mills.	....	190
Inman Mills	....	105
Inman Mills, pfd.	....	101
Jackson Mills	....	95
King J. P. Mfg. Co., Ga	85	100
Lancaster Cot. Mills	130	....
Lancaster C. Mills, pfd	98	....
Langley Mfg. Co.	60	...
Laurens Cot. Mills	....	125
Limestone Cot. Mills	......	175
Lockhart Mills	10	
D. E. Converse Co.	....	65
Dallas Mfg. Co., Ala.	....	110
Darlington Mfg. Co.	75	....
Drayton Mills	...	95
Marlboro	...	75
Mills Mfg. Co	90	93
Mollohon Mfg. Co	....	105
Mollohon Mfg. Co	....	105
Monarch Cot. Mills	110	...
Monaghan Mills	....	101
Newberry Cot. Mills	125	140
Ninety-Six	135	145
Norris Cotton Mills		115
Olympia Mills, 1st pfd.	....	90
Orangeb'g Mfg. Co, pfd	....	90
Orr Cotton Mills	....	91
Ottaray Mills	....	100
Oconee	....	100
Oconee, pfd	....	100
Pacolet Mfg. Co., pfd.	....	90
Pacolet Mfg. Co., pfd.	...	100
Parker Mills(Guar.	....	102
Parker Mills com.	...	25
Piedmont Mfg. Co.	....	160
Pelzer	138	140
Pickens Cotton Mills	94	....
Piedmont Mfg. Co.	....	160
Poe, F. W. Mfg. Co.	....	115
Riverside Mills	....	25
Saxon Mills	120	127½
Sibley Mfg. Co., Ga.	60	....
Spartan Mills	...	120
Toxaway Mills	....	72
Tucapau Mills	260	....
Union Buffalo Mills, 1st pfd	50	....
Union-Buffalo Mills, 2d pfd	....	10
Victor Mfg. Co.	....	112
Ware Shoals Mfg. Co.	....	80
Warren Mfg. Co.	....	95
Warren pref.	...	100..
Watts	...	100
Whitney	...	115
Williamston	115	120
Woodruff	...	105
Woodside Mills, com.		70

F. C. Abbott & Co

Charlotte, N. C.

BROKERS

Southern Mill Stocks, Bank Stocks, N. C. State Bonds, N. C. Railroad Stock and Other High Grade Securities

North Carolina Mill Stocks.

	Bid.	Asked
Arlington	....	140
Atherton	....	....
Avon	....	...
Bloomfield	....	110
Brookside	100	105
Brown Mfg. Co.	100	110
Cabarrus	131	...
Cannon	120	141
Chadwick-Hoskins	....	95
Chadwick-Hoskins, pfd.	....	100
Clara	....	110
Cliffside	190	200
Cora	....	135
Dresden	....	136
Dilling	....	...
Efird	100	125
Elmira, pfd.	....	100
Erwin Com	....	120
Erwin, pfd	101	102
Florence	....	126
Flint	130	
Gaston	....	90
Gibson	....	70
Gray Mfg. Co.	....	121
Highland Park	150	200
Highland Park, pfd.	....	101
Henrietta	....	170
Imperial	101	106
Kesler	125	140
Linden	....	...
Loray, pfd	90	94
Lowell	....	181
Lumberton	....	251
Mooresville	123	....
Modena	....	90
Nokomis, N. C.	....	200
Ozark	92	110
Patterson	110	126
Raleigh	100	....
Roanoke Mills	155	161
Salisbury	136	...
Statesville Cot. Mills	....	96
Trenton, N. C.	....	...
Tuscarora	....	90
Washington, pfd	....	101
Washington	20	30
Wiscassett	103	125
Woodlawn	100	103

Personal Items

H. F. Elliantte, from Rock Hill, S. C., is now grinding cards at the Buffalo Mills, Concord, N. C.

T. M. Foley has accepted the position of secretary of the Eagle and Phenix Mills, Columbus, Ga.

J. J. Hyder has resigned his position as overseer of weaving at the Scottdale (Ga.) Mills.

Tom Jones has accepted position as overseer of spinning at the Girard (Ala.) Cotton Mills.

R. J. Anderson is now grinding cards at the Williamston (S. C.) Mills.

G. P. Parker is now frame fixer at the Unity Spinning Mills, LaGrange, Ga.

Abe Ward is now second hand in carding at the Manchester Mills, Macon, Ga.

J. W. Rogers, from the Saxon Mills, Spartanburg, S. C., is now overhauling at the Inman (S. C.) Cotton Mills.

N. Noblet has been promted from second hand to overseer of cloth room at the Norris Cotton Mills, Cateechee, S. C.

P. M. Tice, from the Franklin Mills, Greer, S. C., is now erecting new machinery at the Greer (S. C.) Mfg. Co.

E. S Faber has resigned as secretary of the Eagle and Phenix Mills, Columbus, Ga., because of ill health.

T. W. Ingle has resigned his position with the Chadwick-Hoskins Mills, Charlotte, N. C., and is now overseer of weaving at Steel's Mills, Rockingham, N. C.

J. J. Edwards, from the Bibb Mill No. 2, Macon, Ga., is now overseer of spinning, twisting and winding at the Trio Mfg. Co., Forsyth, Ga.

W. H. Herring has resigned as overseer of spinning, twisting and winding at the Atlantic and Gulf Mills, Quitman, Ga., and is now located at Columbus, Ga.

George A. Gray, Sr., president and treasurer of the Gray Manufacturing Co., Gastonia, N. C., was operated on last week for appendicitis.

W. H. Gibson has resigned as overseer of weaving at the Wylie Mills, Chester, S. C., to accept similar position at the Alice Mills, Easley, S. C.

C. E. Kisler, superintendent of the Bonnie and Pauline Mills, Kings Mountain, N. C., will also be superintendent of the Klotho Mills, of the same place.

Thos. H. Baxter has resigned as assistant mechanic at the Olympia Mills, Columbia, S. C., and is now master mechanic at the Harborough Mfg. Co., Bessemer City, N. C.

E. S. Williams, of Lexington, N. C., has accepted the position of overseer of weaving at the Nokomis Mills, Lexington, N. C.

J. O. Corn, from Iva, S. C., has accepted a position in the card room at the Williamston (S. C.) Cotton Mills.

D. L. Blackman, from the Carhartt Mills, Rock Hill, S. C., is now section hand in carding at the Fort Mill (S. C.) Mfg. Co.

H. C. Harriss has resigned as card grinder at the Harborough Mills, Bessemer City, N. C., and is now with the Atlas Mills, of the same place.

Two Mills Sold.

Greensboro, N. C. — The Leeco Cotton Mills of Jonesboro, N. C., originally the Eugenia, a brick weave mill, and the Clark frame cloth mill were sold at receivership sales on the premises today. The Eugenia was bid in by J. R. Jones of Sanford for $33,000, while the Clark Mill was bid in for $17,000 by Eugene Erwin, making a total of $50,000 which covers the bonded debt.

Bad Cutting Scrape.

At mill No. 2 at Piedmont, S. C., two young white boys, Lee Hooper aand Fred Burrell engaged in a little quarrel and as a climax to the little disagreement Fred Burrell received serious, if not fatal, wounds in the neck from a pocket knife at the hands of Lee Hooper.

Burrell was immediately carried to his home where every attention is being given him for his recovery by attending physicians. Hooper was brought to Greenville and placed in the county jail to await the condition of Burrell.

Drunk and Frozen.

Columbia, S. C.—The body of L. H. Mills, frozen and with neck broken, was found beside the embankment of the Southern Railway at McCreary's pasture this week.

Shortly before the discovery of the dead man, Mimm's brother, W. M. Mimms, was found almost frozen a quarter of a mile from where the dead body was found. He was taken to police headquarters and thawed out after which he was released and allowed to go home.

It seems that the two brthers had been drinking and wandered from the mill village Saturday night at 12 o'clock.

Elevator Drops Five Stories.

Len Minsey was severely hurt last week on the elevator at the Armon Mill, Mountain Island, N. C., which dropped five stories. He with Will Shield were on it when it fell. Mr. Minsey is in a critical condition but is reported to be a little better at this writing.

Stockholders Meet.

The stockholders of the Humboldt (Tenn.) Cotton Mills held their annual meeting and elected W. W. Board, A. R. Dodson, J. N. Cornatzar, J. W. Humphrey, C. H. Farrell, J. R. Jarrel and John M. Senter as a board of directors. The report of the officials showed that substantial profits had been made by the mills during the improved conditions of the cloth market and the lower prices of cotton during the past three months. The board of directors elected the following officers: W. W. Baird, president; C. H. Ferrell, vice-president; J. R. Jarrell, secretary, and A. R. Dodson treasurer.

Holland Manufacturing Co.

The stockholders of the Holland Mfg. Co. held their annual meeting last week at Gastonia, N. C. Directors were elected for the ensuing year as follows: L. L. Jenkins, S. N. Boyce, John C. Rankin, J. D. B. McLean, H. F. Forbes, W. T. Love and E. P. Rankin. All of these were on the board of directors except E. P. Rankin, who was elected to succeed J. White Ware who had disposed of his holdings in the mill. The directors at their annual meeting immediately following re-elected all the old officers as follows: President, S. N. Boyce; vice-president, L. L. Jenkins; secretary and treasurer, W. T. Love; superintendent, John C. Rankin. The past year has been a very good one with this mill considering the market conditions. It manufactures coarse yarns.

Flint Mfg. Co. Meeting.

The stockholders of the Flint Manufacturing Company met in annual session in the mill's uptown offices at Gastonia, N. C. The business transacted was largely of a routine nature. All of the old directors were re-elected as follows: L. L. Jenkins, H. M. Cleveland, J. R. Withers, S. N. Boyce and L. F. Groves. The directors held their annual meeting following the adjournment of the stockholders' meeting and re-elected the old officers as follows: President, L. L. Jenkins; vice-president, S. N Boyce; secretary and treasurer, L. F. Groves; bookkeeper, J. L. Bush; superintendent, J. R. Withers. The first of January this mill paid its regular semi-annual dividend of five per cent. During the year 2,500 more spindles were added to the equipment, there still remaining room for 1,500 spindles which will be added at some future time. This mill makes fine combed yarns 50's to 80's. The year has been a very satisfactory one.

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Some machinery buyers never look beyond first cost, they live and buy in the present.

Wise buyers look ahead—and know that EARNING POWER is more important, in the long run, than price.

You may not have given this much thought but think it over now. LINE SHAFT FRICTION IS EATING INTO YOUR PROFITS.

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Want Department

Want Advertisements.

If you are needing men for any position or have second hand machinery, etc., to sell, the want columns of the **Southern Textile Bulletin** afford a good medium for advertising the fact.

Advertisements placed with us reach all the mills.

Employment Bureau.

The Employment Bureau is a feature of the Southern Textile Bulletin and we have better facilities for placing men in Southern mills than any other journal.

The cost of joining our employment bureau is only $1.00 and there is no other cost unless a position is secured, in which case a reasonable fee is charged.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau.

A new yarn mill which is to be built writes us for a superintendent who can take about $5,000 stock. Mill has strong financial backing and if any one is interested they should communicate with us at once.

WANT position as overseer of spinning. Have had long experience and can furnish satisfactory references. Address No. 82.

WANT position as overseer of spinning and twisting. Thoroughly experienced on No. 15s to 60s combed and carded. Now employed. Married and strictly sober. Good manager of help. Address No. 83.

WANTED position as overseer of spinning or superintendent of a small mill. 32 years old. Married. Good references. Experience on 8s to 60s local to Egyptian stock. Address No. 84.

WANT position as overseer of weaving. Have had long experience and am now employed. Can furnish good references. Address No. 86.

WANT position as overseer of spinning. Age 30. Married. Been in spinning room 20 years. Can furnish good references. Address No. 87.

had 15 years experience on dyeing and bleaching long and short chain warps and raw stock; also sizing. Have been five years on present job. Good references. Address No. 88.

WANT position as superintendent of yarn mill of 5,000 to 10,000 spindles. Now employed as superintendent but want to change. Age 40. In mill 26 years. Held one position 7 years. Good references. Address No. 89.

WANT position as carder or spinner or both. Experience of 25 years on both combed and carded yarns from 8s to 60s. Satisfactory references. Address No. 90.

WANT position as superintendent of yarn or cloth mill. Experience on both coarse and fine counts and on white and colored goods. Satisfactory references. Address No. 91.

WANT position of superintendent of large mill. Now employed as superintendent and have held this position for five years. Age 36. Strictly sober. Good references. Address No. 92.

WANT position as overseer of weaving room in small mill. Have had 10 years' experience as second hand. Can give good references from present and past employers. Address No. 93.

WANT position as overseer of cloth room. Would not consider less than $3.00. Experience on fine goods. Address No. 94.

WANT position as engineer and machinist. Have had good experience in cotton mill work. Am now employed but could change on 10 days notice. Good references. Address No. 95.

WANT position as superintendent of small mill or assistant superintendent of large mill. Experienced in all departments on from 1-2s up to 80s combed yarns. Good references. Address No. 96

WANT position as overseer of cloth room. 20 years experience. 10 years at present place. Strictly sober. Good references. Address No. 97.

WANT position as overseer of weaving in small mill or second hand in weaving in large mill. Experience on plain, fancy and jacquard work. Draper and box looms. Married. Strictly sober. Good references. Address No. 98.

WANT position as superintendent. No employed but wish to change on account of health of locality. Have had long experience and can give satisfaction. References will be furnished on application. Address No. 99.

WANT position as superintendent. Have had long experience and have operated some of the best mills in the South. Resigned last position on account of illness from which have now recovered. Can furnish satisfactory references and can get results. Address No. 100.

WANTED — Position as second hand of carding in large mill or overseer in small mill. Five years experience as second hand. Married; age 25 years. Good references. Address No. 101.

WANT position as overseer of spinning, spooling and warping. Now employed but would prefer to change. Long experience and satisfactory references. Address No. 102.

WANT position as overseer of spinning. Now employed but want larger job. Can furnish good references from present or former mills. Address o. 103.

WANT position as overseer of carding. Experienced on No. 8s to 40s. Good manager of help. Age 30. Strictly sober. Best of references as to character and ability. Address No. 104.

WANTED—Position as overseer of cloth room. Am at present employed handling product of 1,700 looms on export and domestic. Have 14 years' experience as overseer with some of largest mills in South. Can furnish necessary reference as to integrity and ability, Prefer location in upper Carolina. Address No. 105.

WANT position as overseer of weaving. Experienced on plain and Draper looms and check work. Am also a designer and experienced finisher. Held last job 7 years. God references. Address No. 106.

WANT position as overseer of spinning. Have eight years experience as overseer. Am 28 years old and have good references. Not interested at less than $2.75. Address No. 107.

WANT position as overseer of weaving. 12 years experience with good mills. Best of references. Address No. 108.

WANT position as overseer of carding. Now employed but desire larger room. Have had good experience and have held present position for six years. Address No. 109.

WANT position as carder or spinner. Seven years as machinery erector and overseer of carding and spinning. Married. Age 35. Good references. Address No. 110.

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WANT position as superintendent at not less than $2,000 Now employed, but would prefer to change. Good references as to both character and ability. Address No. 111.

WANTED position as overseer of weaving. 36 years of age. Married. Strictly sober. Good manager of help. Won't consider anything less than $2.50 per day. Can furnish good reference from present and past employers. Address No. 112.

WANT position as overseer of finishing or weaving or both. Have had long experience and can furnish first class references. Address No. 113.

WANT position as superintendent. Had long experience on many lines of goods and can get quality and production. Sober and reiable. Address No. 114.

WANT position as overseer of carding. 7 years card grinder. 4 years second hand. 3 years as overseer on present job. Married. Good references as to habits and work from present and former employers. Address No. 115.

WANT position as overseer of spinning in large mill or superintendent of yarn mill. Have had long experience and am now employed Address No. 116.

WANT position as overseer of spinning. Have had 12 years experience on white and colored work both coarse and fine. Age 44. Strictly sober. Address No. 117.

WANT position as superintendent or overseer of carding and spinning. Now employed. Long experience and good references. Address No. 118.

WANT position as overseer of carding in large mill. Married. Sixteen years experience and am now employed but prefer to change. Address No. 119.

WANT position as overseer of carding. 36 years old, married and can furnish best of references. Now employed in large mill but wish to change. Address No. 120

(Continued on Page 18)

Loom-Gage.

(Continued from page 6)

able bearing 20, and has attached to its upper end a pointer 21, which rotates on a properly graduated dial 22 attached to the top of the casing

On the inner or enlarged end of the shaft 7 is formed a clutch member 23, which engages with a corresponding member 24 slidably mounted on the shaft 2. The slidable clutch member is held on the shaft by a pin 25, passing through a slot in the clutch and a hole in the shaft, the clutch being held in its engaging position by means of a coil spring 26, surrounding the the frame at the opposite end of the spinning machine for supporting the rod 32*.

Mounted on the shaft 7 near its middle is worm 28, engaging with a gear 29 mounted one end of a horizontal shaft 30, which terminates at its other end in a beveled gear 31, the shaft 30 being suitably mounted in a bearing 32. The bevel gear 31 engages with a similar bevel gear 33, mounted on the lower end of a vertical shaft 34, suitably supported in a bearing 35 and terminating at its upper end in a pointer 36, which rotates on a dial 37, the circumference of which indicates one yard and is divided into eights. The intermediate gearing being designed so that when one yard of material has passed between the shaft 7, the pointer 36 will have made one complete revolution.

Mounted at an intermediate point on the shaft 34, is a pinion 38, engaging with a gear 39, mounted on a vertical shaft 40, suitably journaled at 41 and terminating at its upper end in a pointer 42, which rotates on a dial 43. This dial is graduated from zero to 10. The pointer by means of a ten to one ratio in the gears 38 and 39 makes one complete revolution for every ten revolutions of the pointer 36.

Mounted at an intemediate point on the shaft 40, is a pinion 44 which engages with the gear 45 mounted on a vertical shaft 46 suitably journaled at 47 and terminating at its upper end in a pointer 48 which rotates on a dial 49. This dial is graduated in tens from zero to one hundred and the pointer 48 by means of a ten to one ratio in the gears 44 and 45 makes one complete revolution, from every one hundred revolutions of the pointer 36. A ratchet 50 is mounted on a shaft 7 and is engaged by a spring retained pawl 51, thus preventing any backward motion of the entire mechanism. An opening 52 is formed on the bottom of the casing 1 to provide for its easy removal from a bracket 53, one end of which slips into this opening, the other end being fastened to some convenient support.

It will be seen from the foregoing that by pulling out on the knob 8 so as to disengage the clutch member without disengaging the worm 28 from the gear 29 the knob may be rotated in a forward direction independent of the knurled head and thus reset the instrument for the beginning of a new run or for any other purpose.

Cotton Manufacturing in Spain.

(Continued from page 3)

tablishment, gros de Tours or bedspreads, and other Jacquard fabrics. As the mills are all small as regards individual units, this meth-of necessitates many details in management, separate mixings of cottons, and the production of a wide range of yarns.

In the opening room 10 to 15 bales of cotton are usually mixed at once. The scutchers, or lappers, are situated in a separate room, as is the custom in the United States. They are of the usual English type, but some of the more modern machines are equipped with the latest improved double automatic feeder, and the cotton is delivered direct to the hopper by the blower system through a large pipe leading from the opening room. The cards are mainly of the revolving flat construction, 40 inches wide, with 106 flats. A number of the old-style stationary flat-top cards are still being operated, often by the side of the improved type, but the former are gradually being eliminated. Both two and three processes of drawing are used.

The spinning frames are all on the English style, having one leather covered front roller and uncovered self-weighted middle and back rollers. Both the weaving and spinning frames have many more spindles than the American type, 420 being the average number of spindles on the latter. The speed of the spindles on No. 20 yarn is about 9,000 revolutions per minute. Seventy-five per cent. of the looms are of the overpick type, and the average speed of the 40-inch looms is 190, 160 and 150 for the plain, Northrop and Jacquard types, respectively.

Source of Mill Supplies.

Practially all the supplies used in the mils are made in Spain. There are firms in and around Barcelona manufacturing belting, pickers, picker sticks, bobbins, spools, shuttles, harness reeds, fizer cans, pulleys; in fact, practically all the supplies required by the mills. The low prices prevailing for all these lines, together with the protection afforded by the customs duties, make it impossible for foreign supply houses to secure any of the trade.

Picker sticks, similar to the kind used in the United States on the plain loom, made from the best quality of Spanish oak, are sold for about $30 per thousand, whereas the same article in the United States costs nearly $50. Shuttles for 5 and 6 inch bobbins are quoted at about $3 per dozen, while the corresponding price in the United States is $6. The importation of paper bobbins and tubes, however, is considerable, as the mills seem to prefer the foreign product on account of the difference in quality. Most of these are imported from Germany. (A sample of the 6-inch paper bobbin, which is used both by the complete spinning and weaving mills and by the spinning mills only is filed in the Bureau of Manufactures.) Yarn for the market is usually placed on these bobbins and sent to the customer, the empty bobbins being returned to the mill. The price of the 6-inch paper bobbins f. o. b. the factory is 5.70 francs ($1.10) per hundred, and duties and charges are nearly 100 per cent.

The price of the fiber spools of the kind generally used, 150 by 115 millimeters (5.91 by 4.53 inches), is $4.85 per hundred exclusive of duty and freight. The 5-inch wooden bobbins made in Spain are considerably cheaper than those of paper the price being 22 cents per gross for a 1-inch warp bobbin.

Hand-threading shuttles are practically unknown, and I did not find a single mill using knot tiers.

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"I used to think he was going to, but now that he's in college he shows every sign of taking after his mother?"

"That so?"

"Yes; the only thing he has made since he's been there is the debating society."—Exchange.

"My husband 15 years ago," said Mrs. Blank, "used to kiss me every time we passed through a tunnel. But now——"

She gave a bitter laugh.

"Now," said she, "he takes a long pull at his traveling flask."—Ex.

So To Speak.

"See here," exclaimed the customs officer angrily, "you said these trunks contained nothing but wearing apparel. What do you call these bottles of whiskey?"

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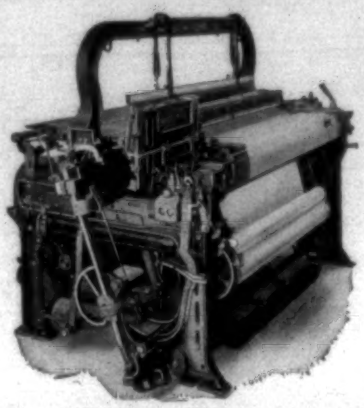

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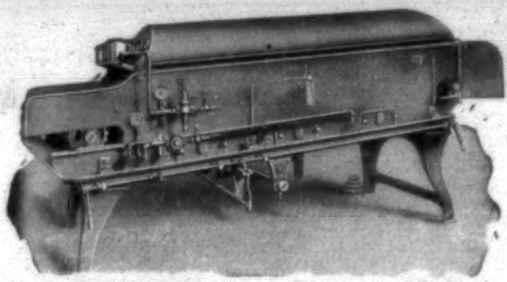

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